FIG. 1.—KAISER FRIEDRICH MUSEUM, BERLIN.

ART MUSEUMS AND PICTURE GALLERIES.

By EDWIN T. HALL [*F.*].

Read before the Royal Institute of British Architects, and illustrated by 62 lantern slides, Monday, 1st April 1912.

IN accepting the invitation of the Council to address you on the subject of Museums and Picture Galleries, I was very sensible of the magnitude of my task, rendered so difficult by the fact that there is no subject on which there are so many divergent opinions, and as to which there so many points of view. There are many architects whose view appears to be that to design a museum and picture gallery means only that they are to make an architectural edifice, imposing from the exterior, containing palatial staircases and halls, which halls will somehow or other adapt themselves to the display of architectural antiquities, sculpture, pictures, keramics, jewels, and other objects of art, and many of you will call to mind exceedingly beautiful designs, which, on analysis, turn out to be, so far as their purpose is concerned, merely vast pantechnicons, glorified indeed, but unsuitable and impracticable in every way. At the other pole are eminent directors of museums who hold that architecture in the building is of little consideration; that so long as the contents are exhibited to the best advantage the building may take care of itself. Thus Professor Furtwängler, in an address to the Royal Bavarian Academy in 1899, says: "The palace type of museum must be abandoned, the main principle must be that museum buildings shall be accommodated to the art work, not the art work to the building." He adds: "Most of our museums are magazines set up in ostentatious palaces." Professor Alfred Lichtwark, director of the Kunsthalle, Hamburg, in an address in 1903, condemns "the interior sacrificed to the façade, galleries used as passage ways, and the symmetrical axial arrangements of interior staircases to afford perspective effects." He says: "It should be forbidden to think of façades before the scheme of the ground plan is formed which will assure the best light and greatest amount of wall space."

While we sympathise with the views of directors to whom the exhibits are everything, we as architects believe that a building of the type under consideration can be, as it should be, designed to meet, and meet adequately, the internal requirements, and yet be both internally and externally a noble piece of architecture. Unless this can be done our art has failed, and failed in making a home for the expositions of artists, a failure which is unthinkable.

FIG. 2.—MUSEUM, MÜNSTER.

Now we must come to close quarters with our subject, and at the outset a limitation is necessary. The conception of museums in general is too wide for discussion here. Scientific museums and museums of art have very little in common: their spheres of influence are different. The aim of the former is to impart scientific knowledge, to accumulate information for those who wish to put it to practical use: the purpose of a museum of art is to awaken artistic enjoyment, to create lovers of the beautiful. Aristotle says: "The direct aim of art is the pleasure derived from a contemplation of the perfect." "The function of an art museum," says Professor Pritchard, of Boston, "is to collect and exhibit works of art chosen for their æsthetic quality." Scientific museums are an essential part of broad practical training, but their field is so large that they cannot be dealt with to-day. Our range of vision over the art side will be found to be so wide that it will engross all our energies. Professor Gilman, of Boston, U.S.A., in 1904, in dealing with the responsibilities of museums of art, says: "Art is a speech, and the first reason for preserving works of art is that they may speak—express their meaning, and this is the primary end of efficient exhibition." Efficient exhibition, therefore, is of immense importance, and later on I propose to deal with this factor as it affects the architect.

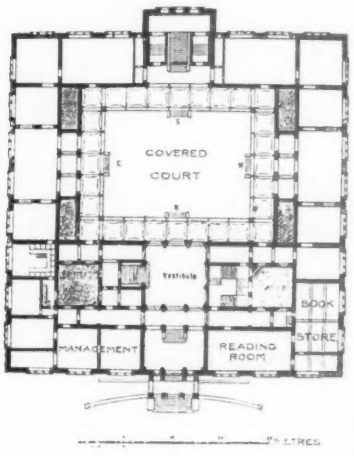


FIG. 3.—KUNST-GEWERBE MUSEUM, BERLIN.

Let us, however, consider the main lines and general principles on which an art museum should be designed.

First of all, its entrances and exits.

It must be borne in mind that there are often priceless works of art in such a building, and as, alas, there are thieves in the world, it is not desirable in normal circumstances to have more than one door (or group of adjacent doors) both for the ingress and egress of people, so that all may be under observation by the same attendants. Fire escape exits in a large building may be necessary, but these should be safeguarded. The common ingress and egress facilitates

the placing of cloak-rooms. A spacious vestibule or hall will, of course, be necessary, and should be consonant with the dignity of the place.

Assuming a large building on more than one floor, the main staircase should be con-

FIG. 4.—THE KUNST-GEWERBE MUSEUM, BERLIN.

veniently near the entrance, so that visitors to departments upstairs may at once be separated from those to the lower departments, thus reducing or disseminating the volume of people. I have seen designs where the main staircase is at the end, opposite to and far distant from the entrance, so that visitors who come especially to visit the upper floor have to pass through the lower, to their own inconvenience and that of those in contemplation of the ground floor exhibits. Of course, there should be other staircases in different parts, both for the public and the staff.

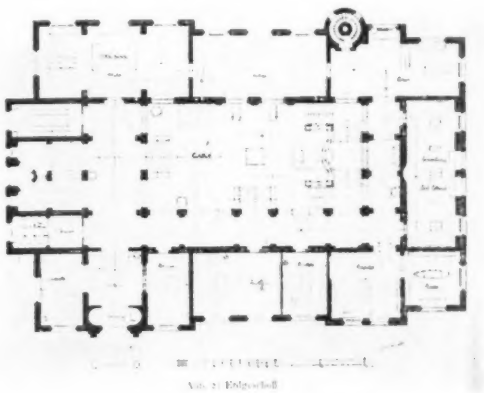


FIG. 5. MUSEUM, BRUNSWICK: GROUND FLOOR.

In a relatively small building a very usual plan is a rectangle with a central court, the staircase being in the centre or at the entrance, as, for example, at Bremen, Linz, and Aberdeen, and this arrangement is commended by most authorities. At Cologne we get a central court, the stairs being right and left of the hall. In medium-sized buildings, such as at Münster [fig. 2], the Kunst-Gewerbe at Berlin [figs. 3 and 4], and at Brunswick [fig. 5], we have an expansion of the same idea.

The administration offices should, again, be placed in a position convenient for those who

have merely business relations with the museum, so that these may not interfere with the art visitors.

I do not propose to deal in detail with such necessaries as refreshment-rooms &c. They may be placed where convenient for general access, but it must be remembered that the supplies and staff should have access without having to pass through the galleries.

The general disposition of departments now demands attention. Top-lighted galleries may be placed in internal courts with rooms around them, or they may be on the top floor. The latter position is, I think, preferable for many reasons, one of which is that if the central gallery has a roof at the height of the surrounding building this will be quite unsuitable for anything but sculpture or architecture, and if the roof be kept down the shadow from adjacent buildings will be objectionable.

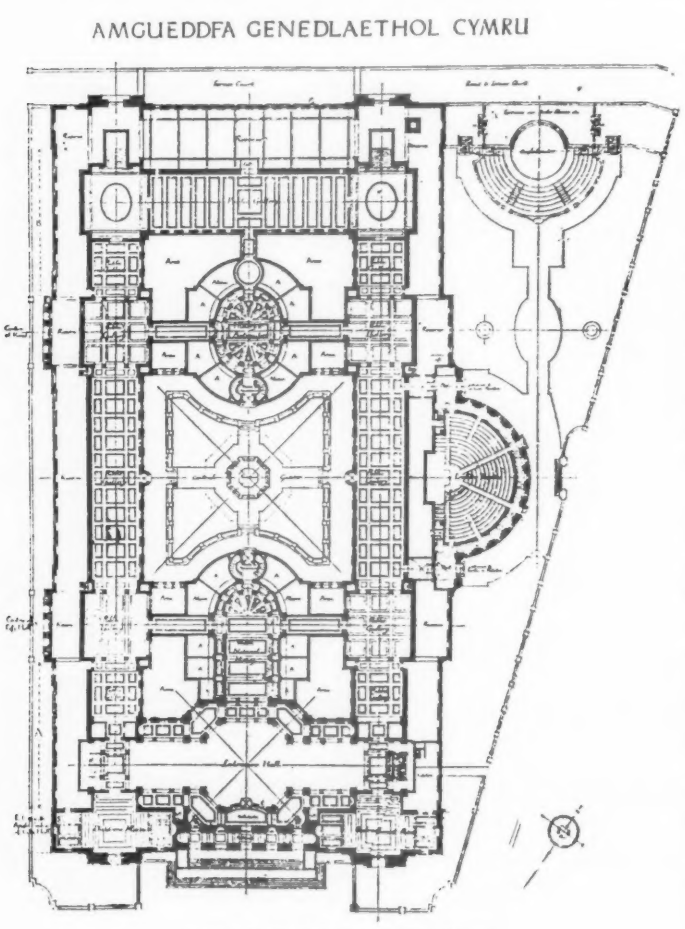


Fig. 6.—Welsh National Museum, Cardiff.

There is a widespread view among directors that there should be internal open courtyards to museums, and Dr. Gustav E. Pazaurek, the director of the museum at Reichenberg, in 1903 said: "The internal courtyards of a museum should be laid out as gardens in which should be sculpture meant for outdoors." You will, of course, call to mind many sculpture gardens in Rome, Florence, and other parts of Italy. These formal art gardens are common all over the world. In India they are a regular and almost universal feature of public buildings, and although many are architectural only, as the Taj Mahal at Agra, others contain sculpture, as the Hosenabad at Lucknow.

In the Welsh National Museum at Cardiff [fig. 6], Messrs. Smith and Brewer have this feature with a central fountain, and below the courtyard is an aquarium. They have also, in the external garden, an open pavilion for the display of national dances, for open-air concerts &c., a feature highly to be commended. It is objected by some that our climate does not suit open courtyards for sculpture, &c., although last summer we had climatic conditions as

favourable as any further south, but if we accept the inferential objection, this could be met by a plain glass roof with open sides, converting the courtyard into a covered garden. I think this courtyard feature is one to be encouraged and developed, and although we cannot have such large spaces as the Italian courts and gardens, or even the Grand Cour du Louvre at Paris, we could frequently have them of areas larger than the octagon court of the Vatican, which is but twenty metres across. In any case, these open courtyards enable excellent light to be obtained for lower galleries and basement rooms. Their prospect from the galleries is restful, and there is also another advantage for galleries surrounding such gardens: the exigencies of the exhibits may require the windows of one room to be varied from those of its neighbour, or may demand, perhaps, a different architectural style for the window. This, in an internal area, can be done, but if the same were desired on the external façade of the building, it would be difficult to do it without damaging the architectural unity of the composition. As an example of this internal treatment I may cite Darmstadt [fig. 7], erected in 1905.

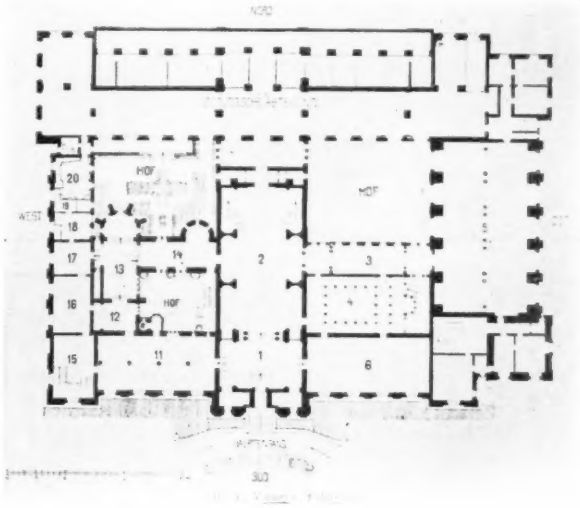


FIG. 7.—DARMSTADT.

This suggestion of sculpture in gardens brings us to the consideration of sculpture galleries themselves. There is considerable difference of opinion as to the best means of displaying sculpture. Some authorities favour large courts or galleries with plain glass roofs all over the area—in fact, the nearest approach to the open air; others say sculpture is best displayed by light coming from windows placed high up near the ceiling, the sculpture being placed near the opposite wall so that light may come diagonally to it. There is much to be said for both views, but the open court view is more on all fours with the covered garden, and should be only for large groups such as Italians would put into their gardens. The latter view is more applicable for cabinet sculpture. If the area be large and the sculpture-groups well placed, the open top light is perhaps best on the whole. A well-known example is the Luxembourg Gallery, 130 feet by 40 feet, which is top-lighted for nearly its whole length. There, no marked light or shade is noticeable, except that in the central parts the vertical light is too great. If the area be small and in the nature of a long gallery there is danger of the shadows from brows, nose, ears, and chin being too much accentuated. All will call to mind the excellent light from high lunettes and windows in the Vatican corridors, and notably in the alcoves of the octagon court

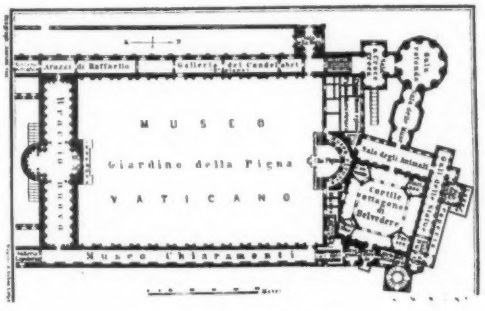


FIG. 8.—THE VATICAN MUSEUM.

of the Belvedere. Professor Clipstone Sturges, of Boston, thinks these are the best lighted of all the Vatican.

In the Braccio Nuovo there are narrow ceiling openings in a coffered vault. No figures are placed in the centre, but the vertical light produces the defects just noted. In the adjacent Chiaramonte gallery the lighting is by high lunettes on one side in alternate bays, and the objects opposite these windows are better lighted than in the Braccio Nuovo. At the Croce Greca there are high lunettes on both sides (east and west). Each piece of sculpture being placed against the wall receives its light from one direction, and the result is good. In the Louvre the galleries, 30 feet wide, have ordinary windows carried up to the vaults, and there the light is excellent. Where this lighting is adopted a white ceiling vault is valuable, as it reflects light. In the cloisters of the Campo Santo at Pisa the lighting on the sculptured figures is excellent.

Dr. Pazaurek says: "The enthusiasm for top light in museums is much diminished of late," but adds, "top light is best for subjects originally intended for the open air," so that he would probably advocate it for a good deal of large sculpture.

FIG. 9.—VILLA ALBANI.

I think one of the finest architectural schemes for the display of sculpture is a wide colonnade (either straight or segmental on plan) at the ends of the central courtyard. A good example is that of the loggia of the Villa Albani at Florence [fig. 9], and such a gallery is more interesting and affords better opportunities for placing sculpture than many more ordinary oblong or square courts.

Another important feature is to form alcoves in the gallery so that statues or groups may be isolated and attention concentrated. The advantage of this is seen in the cabinet of the octagon cortile of the Belvedere, in the loggia of the Villa Albani, and I note that this is a feature of the Welsh National Museum. Of course, in considering sculpture galleries, regard must be had to the ready accessibility for heavy masses to be brought in from outside, and a basement road access is necessary for carts.

While on this subject it is well to consider the question of displaying originals and copies. It is not uncommon to find both in the same gallery, but this arrangement is challenged by experts. Mr. Pritchard, of Boston, says: "Art and the history of art are distinct; history is science, casts are for education, for teaching history or practice. Casts should not be exhibited at all. If casts and originals are exhibited together, the visitor passes both. Originals and casts are not emotionally similar."

Professor Furtwängler, speaking of works of art generally, says that "important works and inferior works must be separated, but the latter may be in near rooms for contrast or comparison." At Dresden, in the Albertinum, sculptured originals are all on one floor, casts on other floors. The same arrangement is adopted in the Berlin Museum. This is a point which has to be settled before an architect can mature a plan for sculpture galleries.

We now come to the general disposition of other galleries in a museum. What is to be the principle on which they are to be laid out? Are galleries for all the different exhibits on a floor to be in one range; that is, to open into one another so that a visitor shall pass through all and make a circular tour back to his starting place? Are galleries to be in groups so that each group shall take one branch of art and illustrate it through all time? Should art work of all kinds of each period or era be illustrated together in the same room or gallery?

For the convenience of administration and supervision only, the one continuous range is better. Large numbers of people are passing in only one direction and do not interfere with those following them. On the other hand, if a visitor wants to contemplate one period of art—be it painting or any other manifestation—he has to make the other rooms mere passage-rooms, and this, further, is disturbing to the art students in those other rooms. Professor Lichtwark condemns galleries used as passage-ways and lays down as fundamental conditions of planning "free movement and quiet." He thinks the ideal is "broad corridors unobstructed, and exhibition galleries disconnected one from another and accessible only from the corridor." A notable example of this is the Uffizi Gallery in Florence [fig. 10], erected 1560-74, whose rooms or groups of rooms are entered from the corridor next the road.

Mr. Robinson, director of the Boston Museum, discussing in 1904 the plans for their new buildings, says that "at Boston each department has sharply defined limits, with, as far as practicable, an entrance from a main passage so that a visitor in one department shall see nothing else, and not be disturbed by vistas of unrelated objects." Dr. Sturges disapproves of "the interminable galleries of the Louvre." He says—and many will sympathise with him—"it is advantageous to keep the galleries of a great museum so divided into groups as to make it possible for the visitor to take one department at a time and not be forced through an endless circuit as at the National Bavarian Museum at Munich, or let loose in a vast maze as at South Kensington."

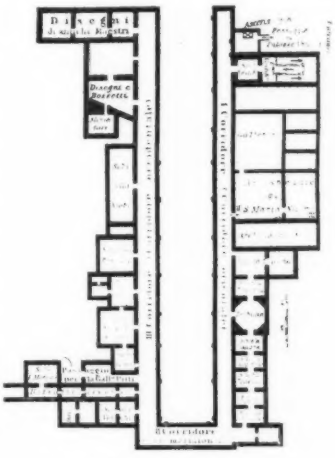


FIG. 10.—UFFIZI GALLERY, FLORENCE.

In small museums or galleries the question we are considering settles itself. The floor area is limited, and the galleries on any one floor become a manageable unit which, if well arranged, meets with general acceptance, as in the examples of Aberdeen and Linz. Liverpool is on a different plan, but is still of manageable dimensions. It would appear to be possible to apply this small unit principle to a museum of any dimensions, however large. The Kaiser Friedrich Museum at Berlin [figs. 1, 11], erected in 1905, is a combination of the two systems. You may go all round, but it is possible to short-circuit home. The City Museum at Amsterdam and the National Gallery in London [fig. 12] are similarly arranged.

The general principles of the scheme having been considered, we come to the ordinary galleries. As far as I can gather, the general feeling in respect of all except picture galleries is that side-lighted rooms are best. I shall later on deal with side light for pictures, but for the moment we are treating of other exhibits.

It will be readily seen that show-cases having shelves will be better lighted from the side than from the top. In the former case the light passes between the shelves; in the latter one shelf casts a shadow on that beneath. For efficient lighting in our northern clime, cases should not be placed more than, say, twenty to twenty-five feet from a window. Of course, in Italy or the South of Europe, in Australia and India, light penetrates to much greater dis-

tances. Windows in our climate should be kept as close to the ceiling as possible so as to get the highest possible angle of light, and in order to get the valuable reflected or diffused light from the ceiling surface. Show-cases should be placed with the long axis perpendicular to the window. If they are placed parallel a visitor casts a shadow on to the exhibit at which he is looking if his back is to the window, and if he is facing it the glare of the window will be in his face, obscuring the exhibit in the case. Nothing is gained by making these galleries more than, say, twenty feet high. At the Welsh National Museum the ground floor galleries are to be about twenty feet high, and the first floor twenty-one feet. The galleries now being erected at the British Museum are all nineteen feet six inches high on the ground floor.

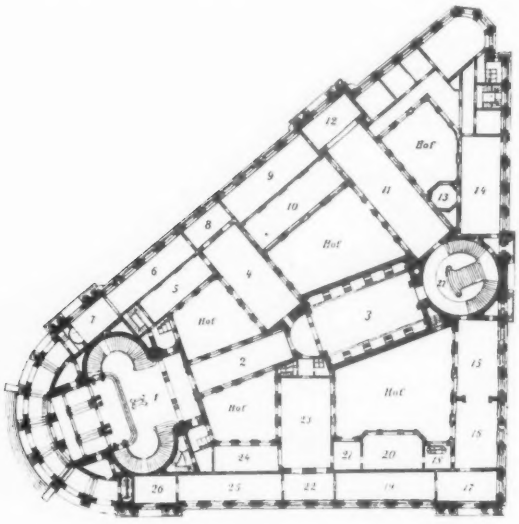


FIG. 11.—KAISER FRIEDRICH MUSEUM.

For the proper display of tapestry and carpets upon the wall, side light is imperative. They are lost and wasted in large galleries lighted by glass all over. The top light casts a shadow from each stitch on to its neighbour, thus darkening the whole colour effect, and when the tapestries are covered with glass the rafters of the roof are reflected in the glass. This is noticeable at South Kensington.

Professor Brücke, in 1878, drew particular attention to this: he pointed out that the "numberless little projections" in tapestry in a top-lighted room were illuminated on their top edges, while the spectator beneath saw the shaded side of each, and lost nearly all the beauty of the colour. He added: "It is the same with oil paintings so lit, where placed above the eye of the spectator." Each dot of paint "has a lighted upper side and a shaded under side," and to the spectator beneath the colours appear more sombre and less vivid. So that in the case of pictures with heavy and dark varnish, and those darkened by time, light from above shows only a mass of black, while in a good side light they still present great richness of colour, and details become visible which had before completely escaped the eye. The superiority of side light is that it permits of placing oneself in a position to see the roughnesses on their lit-up side. Leonardo da Vinci appreciated and explained the advantages of this arrangement in his "Trattato."

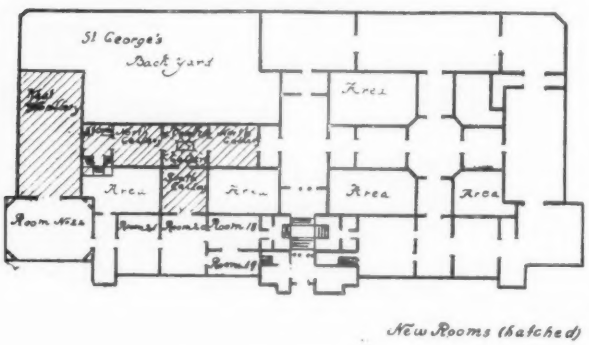


FIG. 12.—THE NATIONAL GALLERY.

The subject of the best light for picture galleries is one on which much has been written. Dr. Pazaurek, of Reichenberg, thinks top light best for modern pictures painted in top-lighted

studios. Not only does he favour side-lighted galleries for Old Masters, but the same view is held by Professor Bather of the British Museum, Dr. Lichtwark of Hamburg, by the Dutch Royal Commission of 1902, and by others whom I have quoted. In this connection the Louvre and the Cluny at Paris, the Musée Plantin at Antwerp, the Pitti at Florence, the Brera at Milan, and others are commended.

I have referred to the Dutch Royal Commission. It will be remembered that Rembrandt's great picture, "The Night Watch," which is fourteen feet three inches by eleven feet nine inches, originally painted for the Scutter's room where there was only a side light, was later removed to the Post of Honour in the new Rijks Museum at Amsterdam, erected in 1885. Indeed, a place at the end of the central nave was specially designed for it. It was to be the culminating glory of the hall. The lighting was from the top, and dissatisfaction with the result led to the appointment of a Commission. They made a number of experiments, tried top lighting not from a central open or flat roof-light, but from a range of sloping lights set parallel to one another, and tried the light from the south-west and north-west. They then tried side light from the same direction, in a room thirty-seven feet nine inches by twenty-six feet five inches, and, with one dissentient, reported that the side light was the best. There were two windows, one nine feet and the other four feet wide, seven feet from one another in the same wall. In the experimental room the cill level was seven feet six inches from the floor and the window openings nine feet three inches high. From the jamb of the nearest window to the wall in which the picture was placed it was four feet eleven inches, and the picture was placed on the floor in the centre of the north-west wall, twenty-six feet five inches long, the height of the room being sixteen feet ten inches. Curtains of tracing linen were placed before both windows when the sun was shining; the ceiling was dyed a dark oak colour and the floor a dark brown. Curtains were used to shield the spectators from the window light. As a result of the Commission's report the picture was finally placed in a side-lighted room.

It will be noted from these experiments that a good height for the window cill of side-lighted rooms is seven feet six inches above the floor, and in Brussels, where the cills were lower, the authorities have fitted shutters to a height of about seven feet from the floor.

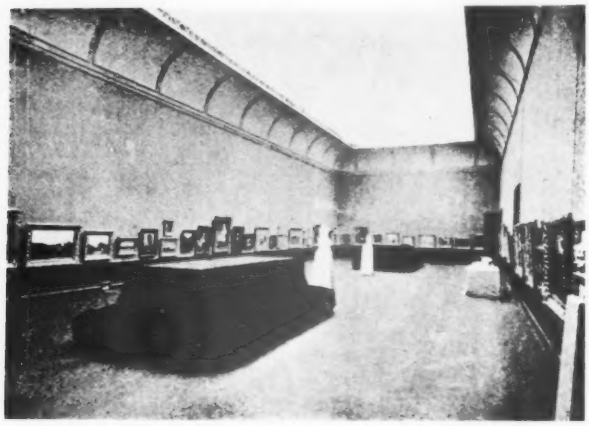
Dr. Sturges thinks sunlight (reasonably controlled) a far more becoming light for most, if not all, pictures. At the Brera, at Dresden, and Berlin, the rooms with sunlight showed the painting and brought out the colour best, and other examples cited are the old Italian palaces. On the other hand, it has been pointed out that the high temperature in the rooms is inconvenient, and blinds are a necessity to modify the light on the pictures.

One difficulty with window-lighted rooms is the glare on the opposite wall. In the Bardini Gallery the back wall is not parallel to the window, but at an angle of one in eight, and there the difficulty disappears. In many side-lighted rooms, as, for example, the Hof Museum at Vienna, the City Museum at Amsterdam, the proposed Museum at Haarlem, and other museums, the side walls are not at right angles to the window, but at an angle of about seventy-five degrees converging inwards, and this materially adds to the illumination of the pictures. In some galleries pictures on the side walls which are perpendicular to the window are each set out at a similar angle, but that is not so satisfactory, as each casts its neighbour into shade. I show an example from the Haag Gallery, and I have seen the same arrangement at Verona. It should be noted, however, that no picture can be hung on a side wall close up to the external wall in which is the window, but this space is always utilised for the doorway.

The very general commendation of side-lighted rooms for pictures, and their adoption in most of the large Continental galleries—as well as their existence in the many palaces all over Europe, which, after all, form the most renowned places of exhibition—would lead us

to conclude that such picture-rooms should be provided in every large museum. Mr. A. W. Weissman, architect, of Amsterdam, points out that these should not be on the ground floor because of the reflection from the surrounding ground. However, the top light in some form is so general, and the convenience of being able to get a great amount of wall space for hanging on a limited site is so great, that this system will always commend itself for picture galleries.

The method of lighting these to the best advantage is of prime importance, and on the screen you have sections of galleries at the National Welsh Museum at Cardiff and in the north building at the British Museum, at the Royal Academy, the National Gallery (including the latest rooms), the Grosvenor, the Royal Society of Painters in Water Colours, the Walker Gallery, Liverpool, at South Kensington, the Weston Museum, Sheffield, and the new galleries at Birmingham.



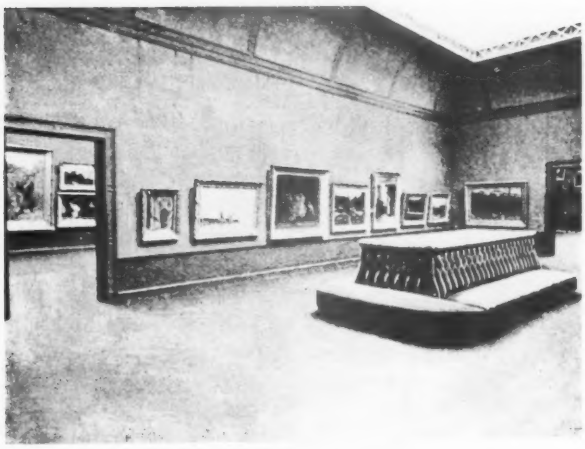


FIG. 13.—CITY MUSEUM, AMSTERDAM.

The new galleries at Birmingham, designed by Messrs. Ashley and Newman, are all top lighted. They are generally thirty-two feet wide, and vary considerably in length to suit different schools and collections. They are a valuable addition to the old galleries. They have flat ceiling lights nineteen feet wide, and outer glass sloping roofs above. The architects inform me that the method of lighting was arrived at after prolonged consideration of the opinions of various authorities. I find, however, that the general consensus of opinion is that great areas of light all across the ceiling, even where these are kept well away from the surrounding walls by wide coves, are to be avoided. They unduly illuminate the floor, and the reflection from this and from the glass in the picture causes great trouble. As an illustration I may refer to the oblong rooms [fig. 13] in the City Museum, Amsterdam. Sir Lawrence Alma-Tadema, R.A., speaking in 1907, says, "with top lighting the floor is lighted, but the pictures themselves are not."

Where these great lights exist various expedients to modify their baneful effect have been adopted. At the Art Institute, Chicago, the centre of the ceiling light has been obscured by a horizontal suspended coloured glass screen in ornamental metal framework [fig. 14]. At other places a velarium has been tried, as at the Kunst-Gewerbe, Berlin [fig. 15]. These expedients condemn the design. The centre of the ceiling should be opaque, *i.e.* there should be a plaster ceiling to obstruct direct rays passing to the floor, and only the side portions should transmit the light.

Lantern lights with vertical glazed sides, as in Sir John Soane's Galleries at Dulwich, have been tried, but these are not satisfactory, as the area of the light is not adequate to illuminate the opposite wall.

A great improvement is seen where the flat ceiling of the lantern is reduced in width and the glass sides slope inwards from the bottom. This arrangement exists in some of the rooms of the old part of the National Gallery in London, but the slope was too steep and the area of light had to be supplemented. It is proposed to adopt the principle in the new Welsh National Museum. In the new rooms at the National Gallery the lantern form has not been adopted, the skylights being of the ordinary saddle-back type, and there has been in the newspapers a great deal of adverse criticism of the result.

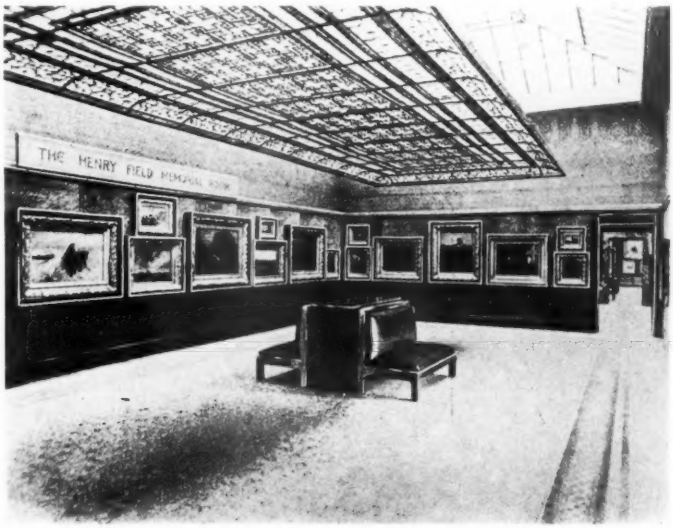


Fig. 14. The Art Institute, Chicago.

Another form giving excellent results in an oblong gallery is a semi-circular or segmental roof with sloping side lights divided by a flat plaster ceiling, or, in a square gallery, a centre skylight similarly divided by a flat ceiling. Mr. E. Stanley Hall has so designed his roofs in the four new rooms added to the Dulwich Gallery [fig. 16], and the American Commission which visited the gallery last year highly commended both arrangements. "The Times," in an article on the gallery in 1910, says: "Sir John Soane's method of lighting is poor and niggardly in a climate like ours. . . . The difference between good and bad lighting is seen the moment we enter the new room." I show a section [fig. 16], in which Sir John Soane's lantern is in the centre, and the other forms of skylight are on each side. It will be seen by the dotted lines all drawn at an angle of forty-five degrees that the direct light to the opposite walls illuminates

Fig. 15.—The Kunst-Gewerbe Museum, Berlin: Gallery in Central Court.

an area in the new galleries of more than double that in the old gallery, although the actual area of glass is nearly the same. An outer glass roof and inner ceiling light should be avoided; the double glazing greatly diminishes the light.

In this connection it is opportune to speak of the height of top-lighted galleries. This height may be well determined by drawing a forty-five-degree angle upwards from the base of the picture (say, three feet from the floor), and where it cuts a vertical line parallel to and distant from the opposite wall one-sixth of the width of the gallery, the point of intersection should be the base of the skylight. Thus, in a gallery twenty-four feet wide the base of the roof light should be twenty-three feet above the floor, and four feet within the face of the wall. This four feet should have a coved or sloping ceiling so that no vertical light shall directly descend to the pictures on the near wall. This height works out the same by the system devised by Tiede described by Mr. Weissman in 1907,* and followed at Schienkils Museum at Berlin, but by his system the centre of the ceiling was all glass and the reflection from the floor was bad.

Top-lighted picture galleries in museums should not be more than thirty feet wide. The very few extra large pictures demanding greater distance for observation can be placed at the ends of galleries. Any greater width makes the height too much.

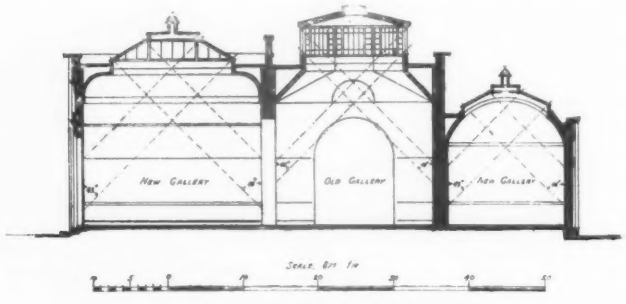


FIG. 16.—DULWICH COLLEGE PICTURE GALLERY.

The walls are not required to be high. One row of pictures is the best for their proper appreciation, but two rows are admirable where they are not too large, so that a height from the floor of fifteen to eighteen feet is ample. At the new Birmingham galleries fifteen feet six inches has been adopted. You will have noticed in some of the internal views which I have shown much excessive height, the pictures covering but a small proportion of the whole.

Mr. Weissman lays stress on the necessity of limiting the height of sky-lighted galleries. Speaking of the Brunswick Gallery he says: "There, the rooms are too high and most of the light falls on the floor, the top part of the roof having a glass covering. . . ." Speaking again of the Alte Pinakothek at Munich, erected in 1836, he says: "The skylight is not what it should be, as the rooms are too high and the openings too small. The system of lighting is the same as in the old portion of the National Gallery of London, but as the rooms of the latter building are much less elevated and the light openings well proportioned to the floor surface, a far better result is obtained in these." Mr. Weissman thinks the interior arrangement of the National Gallery is one of the best to be seen and the lighting extremely well managed. He thinks some of the rooms are too large and would be improved if divided by screens. Again, the same writer says of the Hof Museum at Vienna: "The designer cared much more for the beauty and completeness of the building than for its fitness for a museum. He made the rooms with skylights much too high."

For the Mappin Art Gallery at Sheffield [fig. 17] a very ingenious gallery had been designed by Mr. Edward M. Gibbs. It consisted of a nave with aisles and a transept. The nave itself was but a passage way, and the aisles were divided between the columns into semi-octagonal bays somewhat like side chapels in a church. The ceiling over the nave was of coffered plaster

* *Gallery Building*, by A. W. Weissman, JOURNAL R.I.B.A., 27th April 1907.

with no light in it, although at the domed intersection there was a skylight. Each aisle bay was separately lighted from an external skylight which extended from the middle of the aisle to a third of the width of the nave, and the bay itself had a ceiling beneath, of which a little more than a half next the nave was of glass. The object was to illuminate the outer wall only from about three feet from the floor up to about thirteen feet, and the other splayed faces to a rather greater extent. By this method the skylight would not have been seen by the spectator of the pictures, and it was claimed that all glitter would have been avoided unless a spectator five feet six inches high were within five feet of the glazed picture. This scheme was modified in execution, and it is interesting to compare the two designs, or rather the first design with the actual gallery. Of the latter I show a section [fig. 18].

Attempts have been made to lay down laws as to the relative area of skylight to floor, but none are of general application, as the light varies in different latitudes, and moreover the light in an English city with its pollution by coal smoke is much less than that in France or Italy.

Rolling blinds are necessary for skylights to adjust the varying intensity of sunlight, and these should be inside. In the new rooms of the National Gallery the blinds are external, and whenever there is a change of intensity in light men have to go on to the roof to alter the blinds. This is very inconvenient, and external blinds get very dirty. The floor of all galleries should be dark, to absorb and not reflect light, and the same remark applies to the dado or base of the wall.

FIG. 17.—MAPPIN ART GALLERY, SHEFFIELD.

As to the colour of walls, there is a great difference of opinion. Nearly all agree that the background for pictures should be dark. At the National Portrait Gallery in London the latest decoration to the second floor range of galleries has been black. This may be good for the pictures, but the conspicuous black remains on the retina of the eye and is oppressive. I think it may be safely said that a background is successful in inverse proportion to its obtrusiveness. At the Royal Museum of Old Paintings at Brussels some backgrounds are of plush, some of velvet, the colours of different rooms being sage-green, Indian-red, and old-gold. In the Musée Moderne of the same city plush and cloth are used of Indian-red colour. In the new rooms of the London National Gallery the colours vary; some are green, some golden bronze, others red. Many artists favour red, but probably the colour scheme of every room in any permanent gallery can only be settled by adapting it to the pictures which are to be hung. One artist of great experience in hanging is of opinion that a bright background suits an Old Master better than it would a modern picture.

As to material, silk tapestry, plush, and velvet are beautiful, and they absorb light, but are too expensive for general use. Lacquered or painted paper and canvas are frequently used, but dyed canvas and plain unvarnished paint are also used. In the Belgian galleries referred to, sometimes as many as two or three different colours are employed above the picture background, but one plain colour appears to be best and most restful.

No picture galleries should be decorated with anything but their pictures. Sculpture-enriched cornices, heavy gilding, and architectural surrounds to panels for pictures are out of place, and distract the eye from the paintings.

Before passing from the subject of picture galleries, a word should be said about those for occasional exhibitions or loan collections, as distinct from the permanent collections of the museum. In large cities at home and abroad there are often separate buildings for these exhibitions, but that is not always possible. At the same time, it is bad as well as a great inconvenience to have to dismantle permanent exhibits for the purpose. At the new Birmingham Galleries the provision of a separate gallery was a stipulation, and so it was for the Manchester building. At Birmingham this has been well placed so that it may be closed without affecting the general scheme. One such gallery may with advantage be provided in every large museum. It should be so placed as not to interfere with other galleries, so that if closed it would be quite cut off from and not affect the rest of the building at all. Temporary exhibitions are very valuable. They are a stimulant to art by means of their novelty. They arouse public interest and whet the appetite.

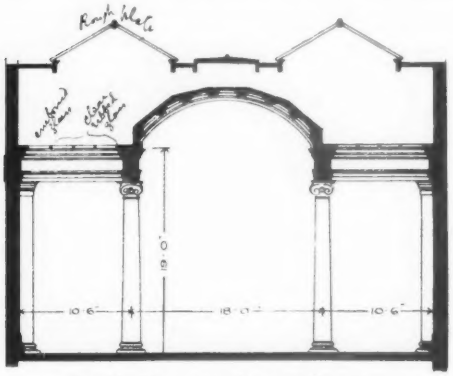


FIG. 18.—MAPPIN ART GALLERY, SHEFFIELD.

A print room or rooms is another requirement for any up-to-date museum, to contain engravings, etchings, original drawings, and such like. Sometimes, as at Cologne, these are arranged in folios on open shelves for ready reference. It may be desirable to place in this department original studies and sketches by masters, although these should not be shown unframed.

The German Directors and Professor Bather of late years have recommended that works of all kinds of art of a period should be located together in a room architecturally reproduced in the same period, so that all may be seen in their natural environment. Dr. Brinckmann, the Director of the Hamburg Museum of Art, says: "The grouping of various art objects together shows how all grew in common out of the soil of a certain temper of mind and a certain hereditary taste," and he arranged a Paris room in this way so as "to display the individual objects in a manner most favourable to their mutual reaction in form and colour." Of this room, Dr. Graul, the Director of the Grasse Museum of Applied Art at Leipsic, writes: "Except where the purely scientific interest compels a store-room arrangement, soon no museum directed by taste and intelligence will permit any other method of exhibition." Dr. Bather commends the National Bavarian Museum at Munich [fig. 19], erected 1894-1900. There the objects are grouped according to periods in the development of Bavarian culture: fifty rooms, each restricted to a period, each built and finished in every detail in perfect fitness for the objects: rooms low or lofty as required. Similar schemes exist at the Plantin-Moretus Museum at Antwerp, in the Monkisches Provincial Museum at Berlin, at Magdeburg, at Reichenberg, and at Cologne, as well as at Hamburg as already noticed, and Professor Folmeritz says the arrangement "quickens the feeling for what is harmonious in the art of the present." Some museums contain churches or chapels designed in the style of the

furniture and fittings therein displayed. For example, the Kaiser Friedrich Museum contains in the centre quite a fair-sized Basilican church in an Italian Renaissance style, in which are placed church furniture of all sorts, sculpture, pictures, altar-pieces, &c., and among others the National Bavarian Museum has a groined chapel to display its Gothic and ecclesiastical work. This historical collective arrangement is not accepted by all authorities, but, even if it be not adopted, the advice of the Manchester Committee, given in their report of 1905, is of value where they say "The introduction into picture galleries of a few pieces of furniture, chests, tapestry, &c., good in style and characteristic of the time to which the pictures belong, is of great value. They take away some of the bareness, coldness, and formality commonly associated with museums."

An important feature of a museum is the reserve galleries. They are not mere warehouses or store-rooms. Some may be so used, and these should be near the goods entrance, but the main purpose, according to modern ideas, is that they shall be accessory to the exhibition galleries, and that from time to time the exhibits proper in the galleries shall be changed so as to keep up public interest. In other words, that the public shall not be regaled only and always with one dish, but that the mental pabulum shall be varied by different courses. For this purpose the reserve galleries should be adjacent to the other galleries to facilitate ready exchange of objects.

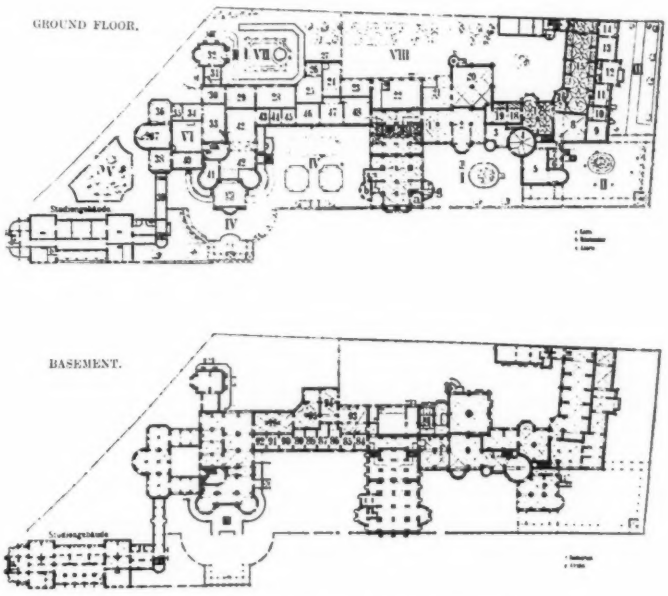


FIG. 19.—BAVARIAN NATIONAL MUSEUM, MUNICH.

There is another advantage in this plan, and that is its elasticity. If it be decided to make small cabinet rooms attached to the main galleries, you have the means of doing so in any department. You can also make recesses into them from the main gallery, as to display, for example, an altar-piece in an appropriate setting. I think the design for the Welsh Museum is admirable in this, as in many other features.

Another matter of interest is that there should be students' research and copying rooms off each department, where students may be quiet. Copying in main galleries is deprecated by some directors as not good for students or for the public. Of course, some students like the publicity, which is advertisement to them, but the serious student of art would prefer the quiet of a private room, and, of course, the copying of sculpture is attended with a lot of dirt and moisture. Each department should have for its Keeper a room, well lighted and quiet, and convenient of access for visitors and students. This gentleman is an important official, an expert responsible for his department, a referee and lecturer, although I have seen designs in which the authors appear to have thought he was a porter.

I have not yet mentioned the children's room as part of a museum equipment. It is, however, a modern adjunct, and should be near the entrance.

Growing interest by residents in a city in the former history of their environment is a most healthy sign, and to encourage this sentiment a department should be set aside to illustrate by sketches, drawings, and models—in some cases actual size—the archæology of the district, the demolished streets and old-world buildings, the former rural scenery &c. of cities which may now be covered by a mass of modern buildings.

Last of all the public rooms is a lecture theatre, and this should be so arranged that, while it is accessible from the museum, it may be separately entered from the outside so that it may be used when the museum is closed. It requires its separate cloak-rooms, lavatories, exits, &c. Its form depends on circumstances. In some cases its use may be restricted to lectures, in which case a semi-circular form is convenient, with tiers of seats. In other cases

Fig. 29.—Bavarian National Museum, Munich.

it may be adapted for other uses as well, as, for example, for photographic or microscopic exhibitions, in which case it is better to make it rectangular with a level floor.

It is hardly necessary to deal with the remaining working departments, and as it is we have travelled over a wide field. I have not dealt with the external design of the building, and in very few cases am I showing exteriors of foreign buildings. My reason for this course is that the standard of architecture varies considerably in different countries, and architects in each will work on the lines of their own country's evolution. It may, however, be said that the repose and quiet which are essential to the interior should be expressed externally, that dignity is all-important, and this connotes simplicity. Sculpture is better if concentrated to emphasise the general mass rather than spread in detached statues all over the building. A sculptured frieze is better in the shade of a colonnade than standing boldly exposed to the inclemency of the weather on a plain wall. As an example of the former, one recalls the Parthenon, where the frieze expresses the mystery of endless life and movement seen through and emphasised by contrast with the rhythmic but rigid lines of columns. A modern exemplification is the frieze in the Grand Palais at Paris.

For side lighting of general subjects, a trabeated is better than an arcuated treatment of windows, because the diffusion of light at the top is more uniform. Large sheets of glass are not better, and are far less architectural, than windows cut up by bars or lead cames, and these do not interfere with the general lighting. This fact may be seen for oneself in scores of galleries, and Professor Sturges lays stress on the fact from his critical inspections.

We have seen many plans of museums, but there are others of interest. The States Museum at Riga is on the long parallelogram plan, having a large central staircase hall, with top-lighted galleries and smaller side rooms with splayed angles on the inner walls. The Provincial Museum at Hanover, erected 1887-1902, is about 273 feet by 203 feet, and is almost identical in the general plan of each of its two main blocks, which are arranged parallel to one another with connecting side galleries, all surrounding a large central court.

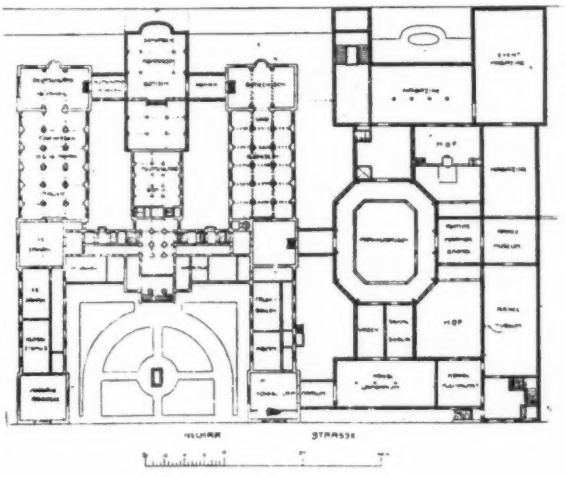


FIG. 21.—THE MUSEUM, STUTTGART.

The Provincial Museum at Bonn is a different scheme, and does not appear attractive.

The Museum at Stuttgart [figs. 21, 22] has a large quadrangular entrance court, as well as several internal courts, and does not look very convenient, simple, or beautiful.

FIG. 22.—THE MUSEUM, STUTTGART.

Glasgow Museum and Art Gallery is 492 feet long by 164 to 278 feet wide: it has a large central nave with aisles, and high transeptal courts with aisles and galleries on both sides and at the ends.

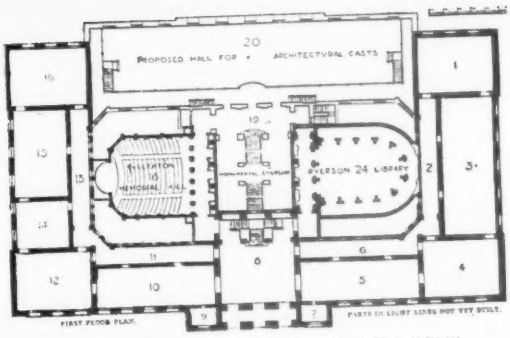


FIG. 23.—ART INSTITUTE, CHICAGO: FIRST FLOOR PLAN.

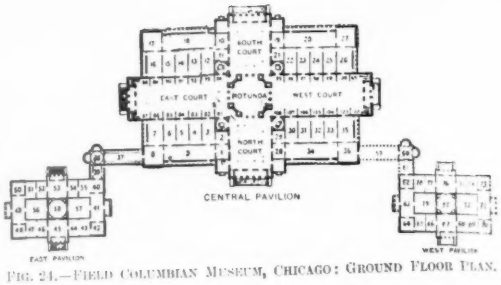


FIG. 24.—FIELD COLUMBIAN MUSEUM, CHICAGO: GROUND FLOOR PLAN.

FIG. 25.—METROPOLITAN MUSEUM OF ART, NEW YORK: MIDDLE HALL.

FIG. 26.—FIELD COLUMBIAN MUSEUM, CHICAGO: SOUTH FRONT.

Edinburgh Museum of Science and Art, erected 1861 to 1888, has a large hall on an axis parallel to the main entrance front, and galleries or courts enclosing this on three sides.

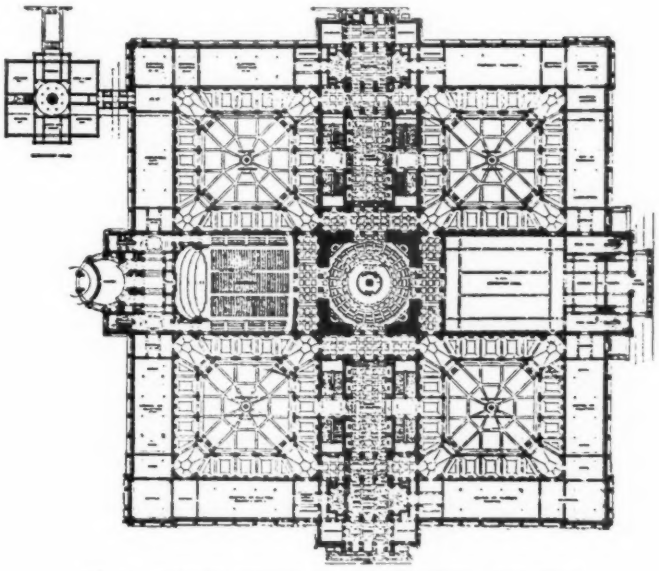


FIG. 27. BROOKLYN INSTITUTE OF ARTS AND SCIENCES, FIRST FLOOR.

The Art Institute at Chicago [fig. 23], erected in 1893, is 350 feet long by 185 feet to 225 feet wide. It has a large central hall, with a stately staircase in the middle of the block, and to the left and right of this a lecture hall and library respectively. The galleries occupy three of the outer sides of the building, and all are entered from a wide corridor as well as being connected together. Its basement is twelve feet high, ground floor twenty feet; the first floor, eighteen to twenty-five feet, is lighted by a glass roof with ceiling light below, the centre portion having the suspended stained glass screen already referred to.

The Field Columbian Museum at Chicago [figs. 24, 26] was the Fine Arts building of the International Exhibition. It consists of a main building containing vast halls in the form of a cross, top-lighted, with a central domed hall, and two rows of rooms opening out of the large halls. The longitudinal nave is 556 feet long, and the cross nave or transept 333 feet long, both 110 feet wide and 77 feet high. From the main building on either side a corridor leads to a subsidiary building forming a projecting wing containing nineteen galleries, the general plan being almost a smaller edition of the main building. Externally the mass is a dignified classical composition.

The Metropolitan Museum of Art at New York [fig. 25], erected in 1877-1892, is 345 feet

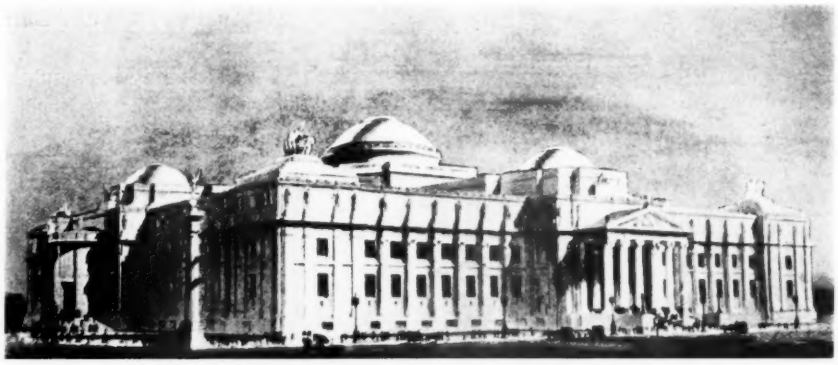


FIG. 28.—BROOKLYN INSTITUTE OF ARTS AND SCIENCES: MUSEUM BUILDING.

long by 325 feet wide, and consists of a central hall of the entire width, and six other large halls next the exterior, with connecting galleries on the major axis. The central hall is for architecture, the other ground floor halls contain collections from the Cyprian excavations—vases, terra-cotta, glass, stone sculpture, &c. The top floor contains pictures, keramics, musical instruments, and Cyprian gold ornaments.

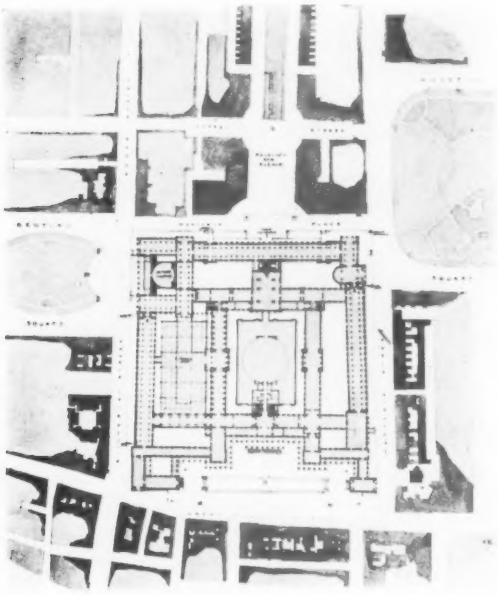


Fig. 29.—British Museum.

At Brooklyn, the Institute of Arts and Sciences was begun in 1895, and, I think, is still in course of erection. When completed it is to be 560 feet square, and will contain four covered courts. Its basement floor is twenty-five feet high, its ground floor twenty-nine, first floor twenty-two, and second floor twenty-four feet high, skylighted. I show the first-floor plan and the exterior [figs. 27 and 28].

The Royal Academy, London, is used for the well-known annual exhibitions of contemporary art, but occasionally it is used for other temporary exhibitions.

The Victoria and Albert Museum in London has been recently completed. It contains several vast galleries of great height, top lighted, surrounded by smaller but spacious side-lighted rooms.

Last of all, we have the British Museum as it is proposed to be when completed. The old part was erected in 1855. The northern block of galleries is approaching completion, and it will be seen that the ultimate extension will reach to Bedford Square on the west and to Montague Street on the east. The well-known Reading Room is in the centre. The new galleries on the ground and first floors will be forty-eight feet wide, lighted from both sides. Those on the top floor are skylighted. They are nineteen feet high to the base of the coves, and thirty feet high to the lowest edge of the glass in skylight. This building when finished will form the noblest architectural monument of the Metropolis, and we hope Dr. Burnet will live to achieve it.

In conclusion, I have to thank all those architects who have so kindly lent me plans and photos of their work to assist in illustrating the important subject we have been considering.

DISCUSSION ON MR. HALL'S PAPER.

Mr. Ernest Newton, A.R.A., *Vice-President*, in the Chair.

Dr. WM. EVANS HOYLE, Director of the Welsh National Museum, who rose at the instance of the Chairman to propose a vote of thanks, said he did so with a very great deal of diffidence. In the first place, Mr. Hall's discourse might be compared to a kind of intellectual pemmican; it was almost impossible to take it in and to form a mental image or conception of what it really contained. In the second place, he had not had the opportunity of reading it through beforehand and reflecting upon it. There were, however, one or two matters to which he might allude. The first of these, which he should like to lay very great stress upon, because it referred not only to museums of art but to all museums, was the absolute necessity of a dichotomous division of museum collections: they must be distinctly separated into the collections intended for the general public and the collections intended for the student and the specialist. The collections for the specialist could not be too extensive. No one studying a subject could have too much material for comparison. But a collection of skulls, for example, such as would satisfy an anatomist would be a weariness to the spirit of the ordinary spectator. Therefore it was necessary to keep the material for the specialist in the reserve galleries, where he could sit at a table at leisure, in a good light, and examine his specimens without being worried by the general public looking over his shoulder, or without his manipulations interfering with the proper view of the specimens by the public. On the other hand, the specimens for the public must be limited in quantity, though each of them must be the best of its kind, selected with a definite object in view, and with a definite idea of what it was there for. That applied equally to artistic productions as to objects for the illustration of scientific facts and principles. Every work of art exhibited ought to have full justice done to it; that is to say, if a picture it should be hung in such a way as to show it off to the best advantage. Pictures ought not to be placed jammed together, like a mosaic, with the view of getting as many as possible on the wall. That was absolutely fatal to the proper realisation of a picture as a work of art. Mr. Hall had very properly dealt with this by mentioning the limits at which pictures were readily visible to the eye. With regard to backgrounds, there was, he thought, no one kind of background which was better than all others. Each must be selected to suit the objects to be placed in contiguity to it. He thought, also, that a variety of backgrounds added very much to the pleasure of going through a museum, just as the sizes and shapes of museum cases should be varied in different departments and different rooms, in order to give a feeling of variety in going from one section of a museum to another. In art collections, the ideal plan would be to have each of the cases designed definitely for the kind of objects it was to contain. There was an excellent example of that in the rooms of the Bavarian National Museum, Munich, where a beautiful glass case had been designed for holding mediæval ecclesiastical metal-work. The mention of the Munich Museum reminded him that the erection and creation of that museum was a wonderful *tour de force*. There was in Munich a large collection to illustrate the artistic history of Bavaria from the very earliest ages to the middle of the nineteenth century, and this building was definitely designed for the purpose of containing this collection. Every room in the building was expressly constructed for the particular class of object it was to contain, beginning with the prehistoric period, then following with the Roman, where the architectural treatment definitely suggested Roman ideas, with niches in the walls like a columbarium. The same idea was carried on through the various periods: a Gothic chapel was erected in one place for an exhibition of altars and altar-pieces, church benches, candlesticks, etc. It was an excellent thing that we should have in Europe, at all events one museum to show what could be done in that way; but it would be absolutely fatal if we were to act on the idea that all museums should be constructed on that principle. It was obvious that a museum like that was a finished museum; it could not grow. When at some future time it was needful to illustrate Bavarian art in the twentieth century a new museum would have to be built and a fresh series started. And if, as was sometimes the case, half the museum had to be built, and twenty years later the other half, we should be in a very difficult position, because all the present materials had to be put into half a building, and when the rest of the building was erected the contents would have to be spread out. Therefore the galleries should be built in such a way that they could be adapted to contain not only twentieth-century objects, but prehistoric exhibits as well. That any gallery should be able to do duty for any other gallery was a more practical ideal. Galleries should be built in long stretches, without special architectural markings which would prevent them from being divided to make rooms of any particular size for any special collection or period. He was glad to hear Mr. Hall speak in commendation of the design of the National Museum of Wales. Personally, he believed that design to be a very

good one indeed. The Council was vain enough to think that it had avoided some of the mistakes of its predecessors; though probably it would be found to have made some of its own when it came to work the museum; but at present it felt that there were some very good points about that museum. One thing he might mention: they had put their administration rooms on the second floor, and, speaking as a Director of a museum, he thought there was a certain importance in this. It was not desirable to have the Director's room too accessible to the public. The question of top-lighting *versus* side-lighting for picture galleries was a very difficult one; as in the case of the backgrounds, there was much to be said on both sides. Mr. Dunbar Smith, Sir Wm. Goscombe John, and himself, had gone over many of the galleries of Europe, looking at every one of them with special regard to this particular question, and—Sir William would correct him if he were wrong—the conclusion they came to was that, speaking generally, for gallery pictures, for most modern works of art, the top light was most satisfactory if it were not too vertical. If it were, one got the effect which Mr. Hall alluded to, of the prominences of the paint being all illuminated above, and casting shadows below. If the light came across, they came to the conclusion that for a large room to contain many pictures, the top light was the best. If the galleries were side lighted, it was very important that the walls should be splayed, and not at right angles to the outer wall where the windows were. The speaker concluded by moving a very hearty vote of thanks to Mr. Hall for his most elaborate and interesting and finely illustrated paper.

SIR WILLIAM GOSCOMBE JOHN, R.A. [*Hon. A.*], in seconding the vote of thanks, said that he could not speak as an expert on the matter, but he might say a word from the point of view of the artist. Speaking from his own experience, the two things which appeared to be so difficult to harmonise were the interests of the dilettante and, what was of far greater importance, the interests of the student. In such huge depositories as the Victoria and Albert Museum we lose our way in a chaos of *objets d'art*, and when we go to look for a particular work for the purposes of study we are in danger of being arrested by all kinds of irrelevant *bric-à-brac* quite foreign to our purpose. Splendid galleries are too often devoted to the exhibition of objects dear only to the wealthy collector, and of small interest to the student of art, and, with little discrimination or selection, all the "goods" appear to be placed in the "shop window." He thought that a museum of such dimensions bewildered the visitor and was far less useful than several much smaller ones. In fact, in these great collections, the student ought almost to be led, with blinkers on, to the object of his studies. Then there was the question of placing objects in their proper surroundings. The very interesting attempt to do this would be recalled in the basilica of the Kaiser Friedrich Museum, Berlin, where altar-pieces, church furniture, etc., were placed. Unfortunately, one could not see the objects well, as the light was insufficient. We all knew of the many fine things that were to be seen in the churches of Italy, but it was often impossible to see them owing to their unfavourable, though characteristic, surroundings. For instance, there were the bronze panels by Donatello, on the altar in the Church of St. Antonio in Padua, which the visitor could only see properly by the aid of a lighted taper and on his hands and knees. One would recall many other fine things in positions most unfavourable for inspection, though decoratively suitable to their surroundings. As to the lighting of sculpture, he thought that, generally speaking, it was best where the light approximated to open-air lighting, or was above the object to be lighted, but under no circumstances should it be below the eye of the spectator. He remembered one notorious instance of bad lighting, viz. at the Museum at Olympia, where the Hermes of Praxiteles was placed. Owing to a series of low-lighted windows, it was impossible to get a good view of the statue. Yet a special room had been built for it and much decoration spread about on the ceiling. Had a simple top-light been placed, or even a high side-light, one could have looked at the statue with comfort and pleasure. As it was, its beauty was sadly interfered with, owing to bad lighting.

MR. FRANK DICKSEE, R.A. [*Hon. A.*], said he quite agreed with Mr. Hall as to the method of lighting he seemed to recommend. For a picture gallery, there could be no question as to the difference of value between side-lighting and top-lighting. Provided it was scientifically right, top-lighting was beyond question the best way of displaying paintings. It should certainly not be a flat-glass roof, such as was sometimes seen, which illuminated the floor more strongly than the walls; and it was very important that the light on one side should only serve to light the pictures on the opposite wall. The top light should have no effect whatever upon the pictures on the wall of the same side on which the light is, otherwise it raked the painting in a very unpleasant way, and marred the effect of the technique. A very important question was the background on which pictures should be placed. If one colour had to be chosen, a low-toned red might be as good as any; just as, if the framing of pictures were to be limited to one material, no doubt gold was the best. But there were some pictures to which a red-coloured wall would be almost fatal. Therefore he could understand with Dr. Hoyle that it would be a great advantage to have galleries in which the background colour varied. For modern pictures he should think, certainly if they must have one colour, red would be the most desirable, because the tendency of modern work was perhaps towards grey and to be

fresh in colour. Therefore, a certain amount of contrast was wanted, but it should not be too pronounced. His own personal feeling was that an absolute neutral dull colour was a mistake. Colour, as it were, begot colour, and if there were a certain amount of colour in the wall, enough to interest the eye, it started the eye on an exploring expedition in the matter of colour, and it probably produced a better result than if there were a dull, grey, colourless wall which did not stimulate the optic nerve in any way at all. He was inclined to think that architects, when dealing with pictures, concerned themselves too much with their architecture and not enough with the treatment of the pictures they were called upon to serve. A very common fault was to place pictures too high; and therefore he agreed with Mr. Hall that it was a great advantage to have galleries constructed which were not too lofty. He could understand that, from the architect's point of view, he got a more dignified effect if he could design a high building; but from the point of view of the display of the pictures, it was better that the light should come low on the wall, and that the picture should be kept reasonably low. The Institute itself, he found, in dealing with its own pictures in the adjoining gallery, put them undoubtedly too high; and that was the way architects would treat paintings if they were left to their own devices. Therefore, a very careful eye must be kept on them when they designed galleries for pictures.

Mr. WM. WOODWARD [*F.*] said it was very curious that with all our knowledge of what should be done for picture galleries and museums we should go on repeating the blunders which we knew to be blunders. The architect in designing museums and picture galleries seemed to delight in making magnificent architectural buildings without the slightest regard to the uses to which those buildings were to be put. The buildings were too high; they dwarfed the objects, if they were ordinary museum objects; and by their height they prevented that adequate lighting which was so necessary, and which was absolutely the most important part of the designing of such buildings. Another thing in which we fail is that we seem to have no idea of simplicity of plan. Taking any of the various museums in England or abroad one finds generally that the plan is more or less complicated. A man may have the plan with him and attempt to follow it, but unless he is very careful he will come back again to the place from which he started without having seen all the rooms. The plan seemed to be made without any regard to that continuity of the exhibition which should pervade all museums. He was sorry Mr. Hall did not refer to the Tate Gallery. In his opinion that gallery was one of the best-lighted galleries in Europe. The roof was curved, and the centre part was plaster or wood. The lights were sloping, and, as Mr. Dicksee observed, that sloping light well exhibited the pictures on the opposite side of the room. In all the galleries he had visited, including that at the Vatican, he had never seen one so well lighted, or at all events better lighted than the Tate Gallery. The Paper had been most interesting and valuable, and Mr. Hall had given them much food for thought. They had had a most interesting address from Dr. Hoyle, the Director of the Welsh Museum, and they had had lectures from curators of museums; but the curious point was this, that *after* an architect had built his museum the curators and the directors would come to him and point out that practically the whole of his planning was wrong. That had happened very recently in London. He sincerely trusted that when the next museum or picture gallery was to be built they would have those gentlemen who knew what should be done conferring with the architect beforehand, and so preventing the huge and costly blunders which we all so deeply regret.

Mr. H. HEATHCOTE STATHAM [*F.*] said he thought that the corollary of what they had heard about the lighting was this, that the best way of lighting a picture gallery was with a lantern in the centre, with the lights vertical, and the centre part opaque. By this means the floor was kept in comparative shadow, so that it was not reflected in the pictures when they were glazed; the light from each side sent light to the pictures on the opposite side. With reference to the lighting of sculpture, no reference had been made to the sculpture in the Hall of the Palais des Beaux-Arts, Paris. The sculpture there was under almost ideal circumstances; it was almost the same as daylight in the open, only that the spectator was sheltered from the weather. There was a court with a great glass roof over it, and the sculpture was seen under a vertical light, but not concentrated, it did not exaggerate anything. He remembered many years ago going with a party to examine the bas-reliefs on the Albert Memorial when they were in progress; they went into the sculptor's shed, which allowed a slight gap between the roof and the base of the monument, and the sculptor told them to remember that they were seeing this sculpture under a very flattering light. He (Mr. Statham) thought it was too flattering, for it exaggerated all the projections of the sculpture. But the exhibition at the Palais des Beaux-Arts was ideal, because it was almost daylight lighting, and there was plenty of room to see each work all round, which was very important for sculpture. He was looking forward to the time when the Royal Academy might acquire and roof the whole of the courtyard of Burlington House, and put all the sculpture there, instead of crowding it into the rooms.

Mr. A. T. BOLTON [*F.*] said that having visited a large number of foreign as well as English galleries he should like to call attention to the fact that there

was another side to the question. They all seemed agreed that these museums were absolutely wearisome, that they were too large, and that there were too many of them. From that point of view there was this answer, that to a large extent the museums had fallen too much into the hands of the specialist. The newest part of the National Gallery was a very good instance of what he referred to. It might be that no one had a very good word to say for the part added by Professor E. M. Barry about 1870; but if that extension was compared with the newest portion which had lately been opened, surely there was much to be said for Barry's planning, which was on a large and adequate scale. The impression produced on the general public by interiors well planned and of good architectural effect was as much worth consideration as the narrower standpoint of the specialist. The present plan of building small cabinet rooms, which were no doubt admirable from the specialist's point of view, could be seen in the new part of the National Gallery, and the result was open to serious criticism. Take the Louvre: everyone who has visited that building on a Sunday must have been immensely impressed with the great stream of people coming into that magnificent gallery. However defective it might be to show off certain pictures, it was in itself an education. The vast public who come in every Sunday to see this great gallery hung with its pictures must derive very much good from the association of a fine interior like that with the magnificent pictures. It may be true that Klenze's Gallery, the Alte Pinakothek at Munich, was a great deal too high, but it was based, he imagined, on the Louvre Gallery, the idea being the same, a long lofty hall. In this case the hall was too high, and had certainly insufficient lighting area, judging from the section shown on the screen and in Klenze's book. Before the specialist is allowed to run away entirely with these public galleries we should show that there is another point of view, and that these fine buildings should be planned in accordance with a large conception, with adequate rooms, and with a certain dignified architectural effect, and not only from the point of view of expert students of paintings who wished to see the pictures in very minute detail. He did not think half of those present would agree with what Mr. Woodward said about the Tate Gallery. The lighting was far from satisfactory. He doubted if there was any gallery so troubled with reflections as that was. He had seen the new Galleries at Birmingham, and had been much impressed by the fact that they were carried out on the exact reverse of the National Gallery. Instead of the open skylight roof craze which had been followed in the National Gallery they had gone back to the same flat glass inner ceiling to be seen in E. M. Barry's work at the National Gallery in about 1870, and these Birmingham Galleries appeared to him to be very well lighted. The pictures were not in those galleries yet, and that of course would be the great test. The ceiling was in large squares, the glass was cast hammered plate, and adequate provision had been made to get between the outer skylight and the inner to clean the glass. That was the usual argument against inside skylights, the trouble of getting rid of the soot and dirt which collected on the glass, but too much importance should not be attached to it. Looking at the National Gallery it was not certain that a mistake had not been made. The Birmingham Gallery had very much impressed him, and if the pictures were satisfactory, as it was possible they would be, he thought the subject would have to be reconsidered both as a matter of plan and section.

Mr. MATT. GARBUTT [*F.*] said that this was not the first paper on the subject they had had at the Institute, and every time the question of lighting had been discussed at some length. But one point had never, so far as he remembered, been mentioned. There might be very good light in a room, and yet one might still be unable to see some of the pictures. In the case of old paintings which had become very dark with age and which had to be glazed to preserve them, it was frequently impossible in our galleries to get any view of them: they had the effect merely of a looking-glass. A man may be seen standing in front of a picture and shifting about from side to side trying hard to see it; he will wave his hat about so as to obstruct objectionable reflections in the hope of seeing a little patch at a time. Would it not be possible to have temporary black screens to put in front of pictures which suffer in that way, so as to give the visitor a chance of seeing them by standing with the screen behind him? There was no other way of getting a view of these pictures.

The CHAIRMAN, in putting the vote of thanks, said they would all agree in thanking Mr. Hall for a very valuable paper. As Mr. Hall truly said, the whole subject was a very difficult one. But difficulties were the architect's opportunity, and as architects he thought they would only have one view, viz. that fine art must be finely housed. The various practical problems must, however, be faced and none of them shirked, for in so far as a building of this sort failed in its practical purpose it failed also as a real piece of architecture.

Mr. HALL, in reply, said he should like to mention that he had had a letter from Sir Charles Holroyd regretting his inability to come to the meeting, and saying some kind things about his paper. But one point he did criticise, and that was the difficulty of policing small rooms for cabinet pictures off large galleries. The difficulty was in providing so many attendants to protect them adequately, and also to police the attendants. One speaker had raised the question of glass on oil paintings. The only reason glass was put on was to protect the pictures. But it was a very practical difficulty, and all who were connected with picture galleries knew that it was a source of anxiety

and trouble to everybody. To put screens in front of every picture which had glass over it would be a great obstruction to the public, and he doubted if it would be practicable.

MR. W. LEE HANKEY, Roy. Soc. Painter-Etchers, writes:—In thinking over Mr. Hall's most excellent Paper, one or two points have occurred to me which, from a painter's point of view, I should like to mention. The question of the floor is one of the most important factors in a successfully arranged picture gallery or gallery where works of art are displayed. There can be nothing so disquieting to the student of art, and unknowingly to the casual visitor, as the polished floor of parquet or wood block which obtains at South Kensington first-floor galleries and the National Gallery. Also the presence of highly polished wooden cases with their attendant legs repeated by reflections in the floor is, to say the least, disturbing and enervating to the optic nerve. It seems to me that all surfaces, whether ceiling, wall, cornice moulding, or floor, should be devoid of anything that makes a "high light" or reflection possible. I would suggest the much despised linoleum of a grey-green tone for the floor, and the walls, as Mr. Hall so wisely proposed, a grey-green, red, or buff. The furniture for the display of art objects would not offend if it were made in the usual hardwood, and oiled or subdued with stain. Get rid of all mirror-like surfaces. I realise the necessity there is for the hideous glass cases, but the object should be to display the works of art and to subdue as much as possible the means used to protect them. Mr. Hall ought to receive the greatest possible support in his idea of curtailing the height of the walls in a picture gallery. One cannot blame the provincial bodies when such an example of overcrowding is put before them year after year in the "Piccadilly Picture Shop." This may appear somewhat outside the question at issue, but the absence of a good example in England has no doubt led to huge mistakes in our London and provincial picture galleries. Mr. Hall's notion of having large store-rooms in a museum appeals strongly, for the overcrowding of pictures and art objects is to be deplored, and the annual change of the exhibits would enhance their value from a spectacular point of view. Get rid of the *mêlée* now caused by the overcrowding, and let us see beauty in a simple and dignified manner. Of course the dream of the modern painter is that there should be a building large enough for his efforts to be placed so that they can be seen to advantage—that each should be favoured by a modicum of isolation, and should not be, as one artist remarked, "mosaic'd" on to a wall in company with antagonistic ideals. How long will it be before England will be rich enough to build wall space to exhibit fairly the yearly output of the artists she possesses?

REVIEWS.

RACIAL CHARACTER IN ARCHITECTURE.

The Works of Man. By Leslie March Phillipps, Author of "In the Desert." 8vo. Lond. 1911. *7s. 6d. net. [Duckworth & Co., Henrietta Street, Covent Garden.]*

It was only the other day that it was pointed out in the JOURNAL that before we condemn Baroque work we should try to re-create for ourselves the atmosphere in which it flourished, and it was argued that, if we did so, we should find that it was in keeping not only with design and costume, but with manners and customs, with the mental outlook and attitude towards life of the people, or class, which was responsible for it, and that much of our criticism of it would be felt to be entirely beside the mark. The hint struck one as being valuable, and here comes Mr. March Phillipps's book, I had almost said to drive the suggestion home, but, if not precisely that, at least to show us how truly architecture and in their degree sculpture and painting are—or must we not say "were"?—an accurate picture of contemporary civilisation, a species of historical evidence incomparably illuminative of the men who practised them.

Those of us who do not cultivate overmuch the habit of independent thinking fall an easy prey to the last speaker, and find every argument convincing till we hear the next: so it came about that when I read Professor Blomfield's *The Mistress Art* I was perhaps too easily captured by his high appreciation of Egyptian art. In the forests of stone at Karnak he saw evidence of the supreme control of the master mind; but Karnak, as Mr. March Phillipps shows, on the authority of Herr Erman, is historically an agglomeration of courts and pylons added by king after king to both ends of the building, all of them intent on leaving their own mark on it and little regardful of the work of their predecessors; and now one is disposed to think that this is the more correct view, and that this particular building illustrates as forcibly as any other the theory which Mr. March Phillipps proceeds to explain.

Art for him is primarily intellectual, not æsthetic: it moves *pari passu* with the ebb and flow of intellectual perception, and its varied manifestations at different times and in different countries attest the level attained in the intellectual life of the people. Nowhere is the relation between intellectual development and architectural forms closer than in Egypt, and nowhere does the intimacy of the relation come to the solution of difficulties with a greater power of conviction.

Egyptian art has always been somewhat of an enigma: the stubborn persistence of form, and

that form both uncouth and unconstructional, with the gradual perfecting of craftsmanship—a contrast unparalleled except perhaps in the Euphrates Valley—is unintelligible unless it is accompanied by a similar stagnation of intellectual activity. Mr. Phillipps argues, not from general culture to architecture, but the reverse way, and, confronted with an architecture so singularly unprogressive, looks for a people whose whole intellectual life shall show a similar mechanical species of development, increased dexterity in their immemorial tasks, but no reaching-out to new activities; and this is what he finds: a steady persistence of animal worship among the great bulk of the people, a religion void of introspection and incurious of first causes, a verbal scholarship of a quite sterile kind, a history which is a mere wordy panegyric of victorious kings, mathematics and medicine almost fossilised in an early stage—in a word, a practical negation of thought; and why was this? What condition was there prevalent in Egypt and in Assyria which has never obtained elsewhere? There can only be one answer, the unexampled monotony of Nature. What Nature was Man was, and we need not wonder if he was lulled into a condition of stupor. The Nile in Egypt, the Tigris and Euphrates in their degree, performing every year those mighty and unvarying functions on which the very existence of the people depended, made of the whole peasant population a mere machine. Man's Egypt, Mr. March Phillipps says, persisted in mimicking Nature's.

History is written in architecture, and Hugo recognised this when he said that the printing-press would kill the more cumbrous mode of expression. Whether he was right or not, everyone who is interested in the "Mistress Art" will be grateful to the author for having once again shown how a people proclaimed, and confessed, its victories, its aspirations, its failures through its buildings far more than through its sculpture or painting.

Space does not admit of my dealing otherwise than cursorily with the remainder of the volume, but all students of architecture should make a point of reading it for themselves.

To pass from Egypt to Greece is to leave the mists of the lowlands for the pure and austere air of the mountain heights, and the chapters on Greek art may be said to rise to the level of their subject. Egypt stood for routine: form and the motives of decoration were held fast in the icy bonds of tradition; but Greek art was like Mother Nature rousing herself at the touch of spring: intellect had suddenly become vital; the scales had fallen from the eyes of the mind. In art, in science, in philosophy, in drama, in every sphere of mental activity, there was the same stirring of dead bones, the same surging of young blood through the atrophied arteries. But the predominance of the intellect had the effect of narrowing the outlook of the Greek: he cultivated lucidity of thought, and asked for definition before everything, and it is in sculpture that he is perhaps most characteristically expressed because, as Mr. March Phillipps says, "Sculpture is definition," and "a sculptor cutting his figure free from the marble is the counterpart of the intellectual developing the construction of the argument." And so it comes about that there is always something wanting in the Greek, something that he cannot give to the modern, either in his art or in his thought. His gods were anthropomorphic because man was his centre of thought and his measure; they were perfect Man, and, like him, they lacked the spiritual element. Here it was that Florence, the centre of the Renaissance movement, the only movement in the world's history at all comparable to that of the Periclean era in Athens, gave something to art which Athens could not. The qualities of harmony and self-control, the ethical character and basis of Greek art, she never succeeded in capturing, and great was her loss, but no one can look at Michelangelo's work without feeling how his spiritual aspirations exhale from all he set hand to.

Gothic architecture expressed ideas; it may be even that its æsthetic side was not realised by those who worked in it. Its forms, always mounting upwards, while Classic and Renaissance alike opened their arms to enfold space, pictured the fierce enthusiasms and energies of the crusades, the vigour of guilds, the spirit and independence of a democracy; but Greek art, according to Mr. March Phillipps, did not express ideas, but initiated them. This is a hard saying, and he admits as much while he develops his idea in an interesting way. The infinitely small and subtle rectifications in the Doric temple, which correct offences to the eye resulting from the operation of the laws of optics, saturate the work with ideas which were not furnished by the mind, but by the eye: they were not put into the work as ideas, but they may be taken out of it as such. The qualities of Greek architecture seem naturally to express themselves in words which equally belong to the sphere of conduct, and preach the virtues of order, economy, and the like. "The Doric temple was æsthetical enough to be ethical." It was, in fine, a sermon in stone.

For the rest I must let the book speak for itself. Arabs and Goths, the men of the Italian Renaissance, the French Court of the fifteenth and sixteenth Louis, the primitives and their successors in pictorial art, follow one another in Mr. March Phillipps's pages, and as he deals with each of them and works out his theory, he points his moral with illuminating phrases which at once take their lodging in the reader's memory as by right divine. The book is pre-eminently the work of a man who does his own thinking, and the bibliography which he appends shows that he has the requisite capacity for taking pains.

A. E. Street [*F.*].

THE NEW EDITION OF FERGUSSON.

History of Indian and Eastern Architecture. By the late James Fergusson. Revised and edited with additions. Indian Architecture, by James Burgess, C.I.E., LL.D. Eastern Architecture, by R. Phené Spiers, F.S.A. 8*o. Lond.* 1911. [*John Murray, Albemarle Street.*]

The new edition of this standard work has been admirably carried out by the joint editors. The original single volume of some 700 pages is now published as two volumes of 970 pages. The type is much clearer than in the original, and the editors have availed themselves of the advantages of process-block printing—unknown in Fergusson's time—adding to the text a considerable number of judiciously selected illustrations.

Perhaps no testimony speaks so eloquently of the genius of Fergusson as the fact that, although hundreds of workers have been engaged in this field of archæological research since his day, the historical arrangement and conclusions deduced remain much as he left them. In the new edition a few dates have been corrected, and a more accurate statement—based on the returns of the last census—of the distribution and numbers forming the various religions of the East is given, but the more complex problems connected with the rise and evolution of forms, and their translation, have yet to be solved.

In the Indian Section an important change is made in the arrangement of the Books. In the original edition Book II. was devoted to Jain Architecture; in the new edition this book disappears, and Books II., III., and IV. of the original now become Books II. and III. of the revised edition; by this arrangement the distinctive features of the styles are more easily followed.

In the introductory chapter to the Dravidian styles, page 322, under the heading "Sikharas," the difficulty of accounting for the curvilinear outline of this feature is commented upon. An intelligent Hindoo once gave the writer a possible explanation of its origin. He said that originally the vimana was a triple-salient-angle square with a flat roof; in the centre a tall pole supported the sacred emblem. The offerings during a festival consisted of chattees (pots) full of rice and vegetables, covered by a square flat tile, the leaves protruding below the tile. As these offerings were brought in they were piled one on the other on the top of the vimana and around the central pole until they reached the emblem. There can be no doubt that such a pile of chattees would assume the curvilinear outline. It is also curious to note that many of these sikharas consist of a series of such gifts piled one over the other, imitating exactly a pile of offerings. The three-salient-angle capital, afterwards so common throughout Guzerat, Gwalior, and Agra, must claim as its ancestors the capitals shown on pp. 300–301, Vol. I.; its highest development is probably found in the roof pavilion of Akbar's palace at Agra, and its features may still be traced in the beautiful though debased work of Futteepoor Sikri, page 294, Vol. II. Although the above-mentioned origin of the curvilinear form of the sikhara may be fanciful, the writer thinks that an analysis of the evolution of this capital would throw much light on the development of Eastern architecture. The leaves are sometimes turned up, as on the cresting of plinths, stylobates, or strings, and sometimes dependent, as in capitals, bases, and sikharas, varying from the simple block outline of the half-leaf to the complicated triple-pointed voluted and veined form found in the most ornate period of this beautiful style.

The new arrangement of books already alluded to brings the southern rock-cut work into its proper place as a preface to Dravidian art. Although epigraphy is an important adjunct of archæological research, it would be quite wrong to put either epigraphy or history before the unerring testimony of form developments. Pagan temples have served as Christian churches, Christian churches as mosques, and so forth, and many buildings have been completely overlaid. The keen eye of Fergusson detected that what we see now in Humayon's tomb was not the work of Akbar, yet the historical records remain, and are seemingly unquestioned by contemporary authorities! The inscriptions translated by Hultzsch make the date of the works at Mahavilapuram the last quarter of the seventh century, but it must be borne in mind that this may be the date of the inscription. If this is about the date when the works themselves were executed the dates assigned to the Javanese and Orissa works seem much too early. At the seven pagodas on Dharmarajas Rath (woodcut 190, page 334, Vol. I.) all the figures originally had but two arms. If the drawing is examined with the aid of a magnifying glass, it will be seen that extra arms have been added by cutting deeper into the rock; the right-hand lowest figure shows this clearly. Again the central figure in the upper group has a well-defined nimbus. In Jain figures there is a form which might be mistaken for a nimbus, but which really seems to be the back of a throne rising above the figure, for the head of the figure is sometimes so high in this form that it is cut by the head on a level with the ears. The central figure with the unmistakable nimbus is neither Buddhist nor Jaina, for it is *standing*. Is it possible that these early examples of rock cutting were the works of Christians, say in the fourth or fifth century of our era? It must be remembered in connection with such a conjecture that a few miles north of these remains lies the scene of the legend of St. Thomas's visit to India, which gives name to the suburb of Madras called St. Thomé. Indeed, the south of India from the earliest records to the present moment has been the centre of Christian activity. Robert de Nobilis in the sixteenth century aroused such jealousy by his immense success that the Pope was instigated to excommunicate

him! Even now a traveller on the west coast backwaters is amazed to see, at the end of some canal vista, a cathedral-like façade rising high among the tall palm-trees which on closer inspection turns out to be a façade only hiding a thatched hut of a church.

> They raised a front upon the stream
> Like old Westminster Abbey;
> And then they thought they'd cheat the Lord!
> They built the back part shabby!

It must also be borne in mind that in those early days, when the truths of religion were conveyed orally and doctrines were confined to the priesthood, religions and beliefs overlapped to a much greater extent than in the present time; the Christianity of Constantine, for instance, retained much of the pagan ceremonial, and broad truths common to all religions would tend to make men more brotherly than when doctrine had mapped out its suppositional boundaries of right and wrong. Although mere conjecture, it is not impossible to imagine a band of Christians in the third or fourth century of our era commencing these works and flying from the inevitable persecution before they were finished; years elapse and the work is taken in hand by Buddhists, then altered to suit the religious scruples of Hindoos, and finally left in its present state. The editor says, speaking of these figures, page 333: "We have on this Rath many of the Gods of the Hindoo pantheon, but in forms more subdued than are to be found elsewhere. The one extravagance is that they generally have four arms," but these are additions, as stated above. The great bas-relief called Arjuna's penance, in the same group of works, seems to illustrate the Elohistic Creation as recorded in the Book of Genesis. The editor says the meaning of the work is a "complete puzzle," but if we rid it of all possible additions and alterations we are left with a fair representation of Elohim (the principal figure) dividing the waters which were under the firmament from the waters which were above the firmament, and the male and female of all species appearing. A careful and critical examination must be made of every possible alteration and addition before any sound conclusions can be reached.

Chapter v., relating to Chaitya Halls, has been enlarged and enriched with nearly double the number of illustrations.

The section on Dravidian art has been greatly extended and many valuable illustrations added. A curious fact connected with Dravidian art does not appear to have been noticed, viz. that the later works were monolithic. The great statue of Siva in Madura must have been carved out of a huge block of granite about sixteen feet cube, and the columns of this period, although apparently clustered, were carved from single blocks of granite. Indeed, Hindoos at this period seemed to recognise the fact that architectural works first fail on the surface at the joints, and much of the work executed at this period will be intact when most of our own work will be crumbled ruin.

Many interesting photographs have been added to the chapter on Ceylon. The restoration of the Thuparina Dagoba shows clearly that when plaster is the material employed, no reliance can be placed on its reproduction of what formerly existed. Nothing but the liveliest imagination could trace in the restoration of this monument (p. 234) the lines shown in Mr. Prinsep's drawing on the same page, although all the essential features are the same.

Fergusson regards the rows of columns surrounding these structures as ornaments perhaps marking out pathways for processions. Mr. Burgess, on the other hand, thinks they may have supported light roofs. Of this the writer thinks there can be no doubt. All have tenons on the top for morticing beams, and the respective lengths of the three rows decrease so as to allow a fall of three feet outwards for drainage. Mr. Burgess's idea receives confirmation from the fact that the steps to the Rewanvelli Dagoba, p. 240, undoubtedly led to a covered area, and if covered here would be covered elsewhere.

In chapter v., dealing with Civil Architecture, it should be noted that the level of the ground around all the specimens illustrated has risen very considerably both inside and outside. The hall shown on page 414 has a plinth below the columns about three feet high; the courtyard on page 415 should reveal the bases of the columns and a plinth three or four feet high, and the pavilion on page 417 has well-proportioned arches and openings also above a plinth.

Further India is edited by Mr. Phené Spiers. It is so much enlarged as to be practically re-written, and numerous beautiful and well-selected photographs have been added. The editor makes Java the second chapter instead of the fourth, and Japan is treated separately from China.

Since Fergusson's time great activity has prevailed in the various fields of archæological research in the countries east of India; the editor has availed himself of the results of this activity and added a concise and logical introductory chapter classifying the various types of religious edifices; but the more we know of Javanese and Cambodian art remains, the less stable seems the theory that the architecture of the Straits did not come from the centre of Dravidian art. Fergusson says: "It may be that as we know nothing practically of the architectural forms of the Lower Bengal provinces before the beginning of the 6th century, these forms may have been taken to Prome and Pegu before that time, or it may be that a northern or Tibetan element crept into Burma across the northern mountains by some route we cannot now follow." The material in the editor's hands tends to strengthen this conjecture, and it is difficult to evade the conclusion that Dravidian art owes more to the Straits than the Straits do to it. No one

acquainted with the feeling expressed in Dravidian art could evolve from it the beautiful proportions shown on woodcut 465, p. 388, Vol. II., or the richness of the arabesquing in woodcut 471, p. 398, or the classical proportions of the doorways (plates 53 and 54). These openings are exactly twice the breadth in height, which is not the rule of proportion for openings as laid down in the "Shilpi Shastras." The roofs of the older temples in Travancore and in the old palace of Palpanabapuram seem to derive their chief characteristics from Burma and the Straits. To use Fergusson's expression, "be this as it may," every lover of Eastern art will feel deeply grateful for this new edition which so ably and conscientiously continues Fergusson's labours.

Southsea. R. F. CHISHOLM [*F.*], F.M.U.

POMPEII.

Pompeian Decorations. Illustrated by a Series of Coloured Drawings. Accompanied by a Descriptive Text. By R. A. Briggs, Soane Medallist, F.R.I.B.A. Fo. Lond. 1912. *25s. net.* [*B. T. Batsford, 94 High Holborn.*]

Pompeii, a city of Campania, was beautifully situated on the shore of the bay of Naples at the foot of Mount Vesuvius. Its inhabitants claimed Heracles as their founder, but on unconvincing evidence, and they themselves seem to have been an undistinguished people occupied in trade and in supplying the wants of visitors (Cicero among the number) from Rome and other inland towns during "the season."

The Pompeians were a sporting people, maintaining an amphitheatre 430 feet by 435 feet, and taking the keenest interest in the games. It was an interest apparently over-enthusiastic and possibly partial, for one learns from Tacitus (*Ann.* xiv. 17) that in 59 A.D. a dispute arose over a contest between a home team of gladiators and visitors from Nuceria, and that so violent was the indignation of the crowd that they broke through the barriers and killed and wounded many of their guests. The proceeding was evidently not customary, as the State forthwith prohibited "games" at Pompeii for a period of ten years.

These events, though doubtless exciting some interest at the time, are hardly history in the grand manner, and neither do such facts that Q. Catullus was consul in 78 B.C. or that Popidius Celsinus restored the temple of Isis after an earthquake in 63 constitute a claim to immortality. In this respect good fortune came to Pompeii in 79 A.D., when it was overwhelmed by a shower of small stones, cinders, and moist ashes which fell upon it from Vesuvius. Temples, houses, theatres were filled with the deposit, and the whole city covered to a depth of from eighteen to twenty feet.

The people of the neighbourhood seem to have very quickly stripped the marble from the arena (which was, possibly from its situation on the outskirts, easily accessible), but the main portion of the city was left untouched. The middle ages, as one would imagine, forgot the place entirely, and it was not until the reign of Charles III., 1738, that excavation was attempted; even then, and later by Joseph Bonaparte and Murat, the dominating motive was a desire for loot. In 1860, however, under the supervision of Signor Giuseppe Fiorelli, systematic and careful work was commenced for antiquarian purposes, and to-day we see as a result a city built at the commencement of our era, roofless and ruined, it is true, but in a way marvellously perfect. There are streets narrow, and paved with polygonal blocks of basaltic lava, hard, yet worn into ruts by the passage of carts; streets with raised trottoirs or footpaths connected at the crossing by stepping stones; sleepy Oriental-looking houses with their windows inwards; shops numerous enough in some cases to form a continuous façade to the street and used often by the owner of the big house at the back to sell his farm, vineyard, or orchard produce; temples, theatres, a forum, a market, utensils of trade and domesticity, paintings and inscriptions.

Up to 1891, five hundred books and pamphlets had been written about this (at the time of its building) ordinary town, some of them of a reasonable size, others, like the great works of Bahn (Berlin, 1827) and Nicollini (Naples, 1854), requiring the aid of a cathedral lectern. The last of these (it is one of moderate size and cost) is by Mr. R. A. Briggs, and is published by Batsford.

The city of Pompeii is constructed of limestone, brick, and tuff—all rough and covered generally with plaster, thick, and by reason of the use of marble dust, hard, and of fine surface. This surface is left, in the inferior parts of the buildings, white, but in the principal rooms and on the exterior often painted in fresco or (later) distemper.

The earlier books on the subject, owing largely to primitive processes of colour reproduction, have not made these mural paintings very attractive. The tints as printed are often unpleasant separately and in combination, and as hard as a catalogue of commercial paint. But the three-colour process has arrived, and in conjunction with the charming and delicate drawing of Mr. Briggs makes yet another book necessary and welcome.

The author acknowledges his indebtedness for much of his pleasantly written introduction to Mr. Mau, and a serious student of the subject will find Sir William Gell's work with its dignified and gracious steel engravings essential. But the lover of colour will discover in Mr. Briggs's book a charm unattained by any of his five hundred predecessors. Such drawings as that of the black "Frieze in the Naples Museum," with its vigorous yet extremely delicate reproduction of the birds, fruit, and flowers, are likely to have a distinct influence on the decoration of the immediate future, and an influence entirely for good.

One could wish, however, that instead of the two rather unconvincing sketches in perspective of

tombs and a garden seat, we had been given views of "the house of the mosaic columns," or the "Stabian baths," showing their decoration *in situ*. I presume the publisher appreciates the value of "surprise" in art, for the shining and somewhat assertive cover, with its stern and uncompromising lettering on the back, leads one to expect an inwardness devoted to sanitary fittings, rather than joyous decoration.

As I have said, Mr. Briggs acknowledges his indebtedness to others for many of the opinions in his introduction; the concluding sentence I believe to be his own exclusively: "The inspiration of these decorations is infinite, and the language in which they speak is everlasting." As a review should not be all acquiescence, I presume to criticise. The mural paintings are dainty, delicate, vigorous, full of charm; but of inspiration and infinity, in the usual acceptation of the words, I see nothing. It may be that my eyes are holden, but are these highest qualities to be expected from the Pompeians? From the inscriptions scratched or painted on their walls, one infers that they were a people somewhat sordid:

"Welcome gain."
"Gain is pure joy."
"Make Sabonus Ædile and he will do much for you."

With a tendency to be influenced by commonplace sentiment:

"His little sweetheart is working for the election of Claudius."

Loose, or libellous (one hopes the latter):

"Restitutus has many times deceived many girls."

They produced no authors, poets, warriors, or statesmen of high repute, and their art is finite, and inspired, but of things material. The Gods *appear*, it is true—Apollo, Bacchus, the sunny gods of Greece and Rome—but they appear simply as decoration, painted with no aid from the "light which never was on sea or land." One feels that the Pompeian artists eat, drink, and are merry with no thought of the morrow when we die. There is nothing tragic, nothing heroic; and the art of the painter, to become "inspired" and "infinite," had to wait for that glorious mingling of earthly beauty and heavenly faith given by "whatever gods may be" to the fair land of the Pompeians 1800 years after their destruction.

HERBERT G. IBBERSON [*F.*].

CORRESPONDENCE.

Registration.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Our Committee's attention has been drawn to a letter by Mr. Hiorns published in the JOURNAL of 10th February, in which he challenges the existence of a widely expressed desire in the profession for Registration. Such a view must be incomprehensible to those who have followed with interest the course of events which led up to the unanimous adoption by the Institute of the Registration policy in 1907.

For some years previous to that date the whole profession was deeply stirred by the subject, inasmuch as it was painfully conscious of the encroachments which were—and are still—being made on legitimate interests of the profession by unqualified persons and trading firms. The agitation culminated in a demonstration of opinion at the Institute's elections, when the "Registrationists" emphasised the demand for such a policy by electing a Registration Council, in place of that which had previously opposed their ideas.

The *Builder* had been practically "Anti-Registrationist" up to that date, and in order to attest the opinion of the profession it conducted a *plébiscite* which resulted in a very large majority of practising architects in the United Kingdom voting in favour of Registration as the policy which met their most pressing requirements. The Institute could not be blind to such a strongly manifested desire, and therefore appointed a very strong Committee of leading members of the Institute, representing all shades of opinion in regard to this question. The Committee reported that after holding 15 sittings and hearing the evidence and views of twenty-four architects from various parts of England, Scotland, and Ireland, they were unanimously impressed with the desire of many architects (especially those practising in the provinces) that a legal status should be given to duly qualified practitioners in architecture, and they went on to express their belief that in a short time the holding of a legal diploma would prove of professional value, and that such State recognition would encourage education and raise the qualifications of architects, and would at the same time avoid the temporary necessity of granting a statutory title to unqualified men.

The Committee's unanimous report is to be found in the JOURNAL of 9th March 1907, which also contains the plan suggested by the Committee for carrying their recommendations into effect. This report was adopted by the general body of members, and in due course Resolutions were submitted and carried unanimously by the general body of members in March 1907. These Resolutions have subsequently been referred to as the "Mandate," since the passing of which the whole profession has regarded Parliamentary Registration of Architects, under the auspices of the Institute, as a foregone conclusion; but, as in the case of all such reforms, the rank and file go for the broad principle of the measure and leave the general details to the executive body. In the present instance the profession, more particularly the members of the Institute, have left the details, by which Registration is to be carried into effect, in the hands of the Council with that confidence which is in itself a great tribute to them as a body. If this confidence is to remain un-

disturbed the Council should at the earliest possible moment produce a really practicable Bill based upon the principles laid down in the Registration Committee's Report of 1906.

We are conscious that we carry the weight of well-considered and responsible opinion when we state that no well-wisher of the Institute would like to see it torn into factions again, and the bitter fight and excitement of former times revived; neither do we wish to see the Institute stultifying its position by showing any hesitation in carrying out the solemn obligations which the Resolutions of March 1907 entrusted to the governing body.

That the President and Council are loyal to these Resolutions was plainly manifested by the following statement of the President at the Business Meeting of the 9th March: "The Council," he said, "do not consider that the question of Registration is still an open question. We consider that the Institute and Council are bound by the Resolutions passed on the 4th March 1907. As to the Council's proposals of the 8th January, these having been referred back for further consideration, the Council have appointed a strong Committee to consider the matter and report on the subject. The Council will in due course report to the general body."

As "Registrationists" we are, in common with other members of the Institute also in sympathy with that policy, keenly waiting for that report, for after the experience of recent years we confidently anticipate that the Committee will recommend a somewhat broader and more tolerant Registration scheme, commanding the support of all interested parties whether professional or educational, than that which has so far led to nothing being done of a tangible nature or calculated to inspire confidence among "Registrationists."

If, however, there should exist an opinion in the Institute that the Registration policy is no longer generally desired by the profession, let such an opinion be tested by an attempt to rescind these Resolutions. We are convinced that the result would show that the demand for such a policy is more firmly rooted than ever.—Yours faithfully,

ALBERT W. MOORE [*F.*],
HERBERT SHEPHERD [*A.*],
Hon. Secretaries Institute Members' Club.

Architectural Education.

MR. EDWARD A. JOLLYE [*A.*], in a communication which we have no space to print in full, commenting upon Mr. Dixon's letter in the last issue, says:—"The 'definite salary' savours of 'minimum wage.' Question of payment for services rendered depends much upon the state of the market. In an overcrowded market a few good ones find acceptance, the ordinary are a drug. If the students are ten times more highly trained, positions of assistants would not be any better if the numbers remained. The architects at the head of the profession are men of decided social standing. None of these want any but well-trained scholarly assistants except for minor office work, and one would not expect to pay a large salary for a tracing or copying clerk. At the same time this minor assistant has the privilege of seeing good work, and if observant he may learn a great deal. When we find Associates qualified as capable architects (as far as any examination can test their ability to practise) having a clientless field to enter, we feel they have chosen or have been directed into a fool's paradise! What can be done, and who should do it? We may envy, but we cannot abuse the men who being men of social standing find a ready supply of dependents. They entered the profession apparently with the assurance of having a field of operation. I have frequently advised parents who have desired to make their sons architects, to think again, and ask themselves if they can justly place their sons in the most exclusive profession! A broad and liberal education is necessary, a public school training desirable, and a University career almost essential. Travel must be part of the youth's curriculum, and this means a fair modicum of means at the embryo architect's disposal. Even with this propitious start, a genius is not assured; but should such men become qualified architects they will have a practically certain *clientèle*. This is the *high road*, but off the *low road* we may get very able practitioners, though their opportunities are necessarily limited. Whether architects like to employ a high-road or a low-road man should be left to them. Ability cannot be detected all at once, and I would oppose any Bill which might work unjustly, which might keep back a youth of ability and check the survival of the fittest. If we want architecture let that be our aim. If money, there are other channels in which it may be better and more abundantly acquired. Whatever happens, I don't see how architects can spend a longer time on education, as most of them are learning every day."

Books Received.

The Geology of Building Stones. By J. Allen Howe, B.Sc., F.G.S. Arnold's Geological Series. 8o. Lond. 1910. 7*s.* 6*d.* net. Edward Arnold, 41 and 43 Maddox Street, W.

Reinforced Concrete Design. By Oscar Faber, B.Sc., and P. G. Bowie. 8o. Lond. 1912. Price 12*s.* 6*d.* net. Edward Arnold, 41 and 43 Maddox Street, W.

Small Water Supplies, being a practical treatise on the methods of collecting, storing, and conveying water for domestic use in large country mansions, estates, and small villages and farms, for the use of Engineers, Estate Agents, and Owners of Country Property. By F. Noël Taylor, C.E. 8o. Lond. 1912. Price 6*s.* net. B. T. Batsford, 94 High Holborn.

The Making of London. By Sir Laurence Gomme. Illustrated. 8o. Lond. 1912. Price 3*s.* 6*d.* net. Henry Frowde, Oxford University Press, Amen Corner, E.C.

The Story of Jerusalem. By Colonel Sir C. M. Watson, K.C.M.G., C.B., M.A., &c. Illustrated by Geneviève Watson. Mediæval Town Series. Sm. 8o. Lond. 1912. Price 4*s.* 6*d.* net. J. M. Dent & Sons, Ltd.

Keystones of Building. By F. Inigo Thomas. With 2 illustrations by the author. 8o. Lond. 1912. Price 2*s.* 6*d.* net. John Lane, The Bodley Head.

9 Conduit Street, London, W., 13th *April* 1912.

CHRONICLE.

Municipal Officials and Architectural Work.

On the 21st March a deputation from the Glasgow Institute of Architects, headed by the President, Mr. John B. Wilson [*F.*], waited upon the Corporation of Glasgow, for the purpose of entering a protest against the policy of the Corporation in employing municipal officials to carry out works of architecture, especially in relation to the proposed Municipal Buildings Extension. Mr. Wilson addressed the Corporation as follows:—

We, as representing the Glasgow Institute of Architects (which, I may mention, has a membership of some 200), and through it, the profession generally, have asked permission to approach you regarding the employment of officials in carrying out works of architecture, and in particular on this occasion with respect to that policy as it affects the proposed Municipal Buildings Extension, a work which, from its extent and situation, must form one of the architectural features of the city.

We desire respectfully to enter our protest against such a course being followed, to some extent, naturally, in our own interests, but mainly in those of the community. In doing so, we have no wish to make too much of our own importance, or to belittle the merit of others, but come before you as those having, through our professional training and experience, a well-grounded knowledge of the subject in question, in the hope that you, gentlemen, will not lightly set aside such information as we can provide, or advice we may offer.

That it is not only the duty, but the desire, of each member of the Town Council to secure the best possible results from the expenditure of public money on its buildings, may be taken for granted; and that also, it may be presumed, at the standard rate of wages, not only for the workmen who erect, but the man who designs them.

Such best results, we believe, or rather I may say we know, cannot be achieved if architectural work of an important nature, such as the building in contemplation, is entrusted to the City Engineer.

We have no desire to undervalue, in his own particular line, the ability of Mr. M'Donald, but it is a simple fact that, in the first place, he is necessarily much engrossed in administrative work, and consequently unable to devote the undivided attention from its first inception to its completion which an important building absolutely requires; and this would be the case whatever rearrangement of the Department may be decided upon by the Corporation; and in the second, that he is not possessed of the special qualifications and training in architecture to fit him in the highest degree for such work.

It follows that the engineer would, on both these accounts, be under the necessity of delegating the work to a very great extent to some members of his staff. The gentlemen so employed at present, we have every reason to believe, are efficient at the least up to the level of requirements of the positions they occupy, that of principal assistants; they possess, in some cases, special qualifications, though only such as are held by many of our younger architects and not a few of the head draughtsmen serving in the offices of our city and elsewhere; but their standing is certainly not such as to warrant your handing over to them works of magnitude and architectural importance.

While the staff is therefore not such as should be entrusted with the more or less independent handling of important buildings, it may be of larger number and of higher qualifications than would be required if, as we believe should be the case, its attention were confined to minor works and repairs. Such an arrangement was undoubtedly the reasoned intention of the Corporation when, on the death of Mr. Carrick in 1890, it resolved not to appoint a City Architect in his place, but to divide his work between the Master of Works and the City Engineer, except such as should be given to outside architects.

The intention, if not the wording of the Minute, has been largely departed from in recent years, though never to the extent now proposed. We would urge that it be reverted to with the addition of a sufficiently qualified architect in responsible charge, and suggest that a good opportunity is offered of doing so at this time in view of the changes in the Department under contemplation.

We would submit that, quite apart from the question of individual ability, the employment of an outside architect for all but routine work is to be preferred in the public interest for the following reasons among others:

(1) All experience of Departmental work of this nature shows the oncost in relation to the value of work executed to be greater, where everything is accounted for, than where done by outside men. Figures are not available to us for the city, but in the Scottish Board of Works Office it has been shown to be equal to 8 per cent., and in all the English instances investigated, considerably more.

(2) The lack of personal responsibility on the part of the designer when an official tends to indulgence on his part in extravagance in design and finish, and this is accentuated when his experience has been confined to that of a public office where the personal interest is not closely involved in controlling expenditure. On the other hand, an independent architect, being free from inside influences and accustomed to be held personally responsible for ultimate cost, is in a much better position to look after his clients' interests in that respect.

(3) The Corporation, with an independent architect employed, and a competent official to advise it, is not deprived of the value of expert criticism on the design of buildings to be erected for it, as it is when the official is also the designer.

I shall only advert, in conclusion, gentlemen, to the manifest injustice and hardship involved to the architects in Glasgow, who, through the rates, are under the necessity of contributing to the upkeep of a Departmental Office which, in such cases as this, threatens to become—as it has already done in other instances—a favoured competitor. The Corporation has set itself, with intention, to favour the artists of Glasgow by employing them in the decoration of this building and by the purchase of their pictures for the

Public Galleries. The same treatment should, in reason, be extended to the architects of the city, the more so that they are dependent in greater degree on the patronage of public bodies for the exercise of their art.

The work of Glasgow architects has a high reputation within and without the bounds of the city. They have done well for the Corporation in the past, from the days when your predecessors entrusted the designs of the Trades House to Adam, old St. Paul's Church to Hamilton, St. George's to Stark, and through other buildings too numerous to detail, to many important blocks of warehouses and dwellings under the Police Commissioners during recent years. I make bold to say that had the building we are in been designed by a Glasgow architect, and without so much official interference, it would have been a better one in every respect. With the design of the Tontine Buildings and the M'Lellan Galleries taken from us, we feel that the Corporation has not given us the consideration we merit, and we trust that, even yet, a better policy will be adopted—better for the community—while fairer to us—in connection with the building now to be considered: that, in such manner as you may decide—by direct commission, open competition, or otherwise—it will be entrusted to an independent architect.

It has been argued that plans having already been prepared by the staff to the instructions of the Corporation, they are not justified in setting these aside.

We believe that they are so justified because:—

(1) Such plans as have been prepared are little, if anything, more than would be necessary to arrive at particulars of the accommodation required and obtainable, and to form the basis of instructions to an architect on taking up the work.

(2) Should they be accepted, the Corporation prejudges the issues set before them, and precludes the city from obtaining better results elsewhere.

The debate on the subject of the Municipal Buildings Extension having been postponed, a copy of Mr. Wilson's address was forwarded to every member of the Town Council.

A note from Mr. MacLean, Secretary of the Glasgow Institute of Architects, received at the moment of going to press, states that the deputation has had the desired effect and the Corporation have decided to invite plans from outside architects for the proposed buildings.

Suggestion for a Traffic and Town Planning Board.

A series of articles reviewing the Housing Problem in London appeared in *The Times* of the 6th, 9th, and 10th April. The chief problems brought out in the first two articles appear to be four: viz. (1) The continuance of much overcrowding per room, in spite of the diminution of overcrowding per acre and the large number of empty houses; (2) the continuance of many small slums; (3) the urgent need of town-planning in Outer London; (4) the need for passing from old-fashioned municipal housing schemes, which aim merely at "housing the working classes," to municipal initiative in the co-ordination of the housing of different classes, as is done in a garden suburb scheme. The third article is devoted to the consideration of what are the most practical ways of dealing with the problems stated, and how far any need for new legislation is indicated by them. To deal with the special problem created by the vastness of London and its numerous municipal authorities, the formation of a Traffic and Town Planning Board is suggested. An interesting precedent has just been set in the case of Greater Berlin, where the Prussian Diet last year passed an Act constituting a new town-planning authority. This body, which has very full powers, controls practically the whole of a wide area, including, besides Berlin itself, Charlottenburg, Teltow-Beeskow, Spandau, Niederbarnim, Rixdorf, and many other populous and extensive areas under a large number of authorities.

Suggestions for London Improvements.

Mr. Wm. Woodward [*F.*], in a letter to *The Times* of the 10th April, refers to the vote by the Paris Municipal Council of £36,000,000 sterling for the improvement and embellishment of their city, and puts forward the following suggestions for London improvements, "assuming," he says, "that public opinion can be sufficiently interested to insist upon our authorities vying with the Paris Council in providing that money and that power which Paris sees will be amply returned in the attractions of a city made beautiful":—

1. Let the Office of Works, the London County Council, and the City of Westminster put their heads together again, and deliver London from the present condition of the opening of the Mall to Charing Cross, which is a discredit to the nation. Widen Charing Cross at its Parliament Street end, clear away the adjacent houses in Cockspur Street, and lay out the site as Paris would do it.

2. Make Trafalgar Square worthy of what it is said to be, viz., the finest site in Europe.

3. Set back the railings of the Green Park, next Piccadilly, so as to widen the thoroughfare there and at the same time lessen the dip in the roadway.

4. Provide a "Valhalla" adjoining Westminster Abbey for our future heroes. Remove some of the worst of the monuments to our past great men from the Abbey to the new home, and restore that ruthless defacement of the architecture of the Abbey which was permitted in the darkest days of artistic indifference.

In a fifth suggestion Mr. Woodward proposes the Royal Botanic Gardens, Regent's Park, as a site for the new London University.

These Gardens (he says) are entirely within the Inner Circle of the park, and occupy an area of about eighteen acres. The site is central, is near the Tube railways and other means of easy access, and it has all the advantages of healthy and beautiful surroundings. The authorities of Bedford College have evidently thought the situation a good one, as they are now erecting their new building adjoining the Botanic Gardens, and the Royal Academy of Music has selected an adjacent site in the Marylebone Road, upon which it has just erected its new quarters. A considerable portion of the more beautiful parts of the Botanic Gardens, together with the lake, could remain to render additionally attractive and useful the University itself.

The Botanic Gardens are the freehold of the Crown, and it is well known that for many years past the lessees have found it difficult to make both ends meet, the condition of the Gardens themselves testifying to the want of money. An amalgamation with the Royal Horticultural Society would no doubt satisfy the public that botanic culture would not suffer.

The Office of Woods, with the assent of the Treasury and with the sanction of his Majesty the King, could grant the new University a perpetual lease at an annual rent consistent with the uses to which the site would be put: the matter is a national one, and I should be much surprised if the authorities I have mentioned regard it in any other light.

Suggested Royal Commission on Smoke and Health.

At the recent meeting of the Smoke Abatement Conference, Dr. H. A. Des Vœux read a paper in which he urged that the Government should appoint a Royal Commission to inquire into the whole subject of smoke abatement. He suggested that the Commission might inquire, among other things, what standard was desirable as to the colour or density of the smoke which should be deemed a nuisance; whether the present fines on offenders were sufficient; who should be punished; whether any industries should receive special treatment; the incidence, intensity, and duration of fogs and their effect on health; the influence of smoke on health and its damage to property; how far it was possible by smoke abatement to conserve our coal supplies; whether a time limit might be fixed during which the emission of smoke might be permitted to issue from factory shafts; and how far it was practicable to deal with smoke from private dwelling-houses. The Act passed in 1878, he said, had been a failure, and the time had come when the cause of that failure should be inquired into by an impartial tribunal.—The meeting passed a resolution recommending that the offer of Mr. Gordon Harvey, M.P., to introduce into Parliament the Smoke Abatement Bill prepared by the Smoke Abatement League be accepted, and that, failing any prospect of the Bill being passed next year, steps should be taken to organise a deputation to the Government to urge the appointment of a Royal Commission.

International Congresses in Rome on Archæology and the History of Art.

The third Congress of the International Congress of Archæology will take place in Rome from 9th to 16th October under the presidency of Commendatore Corrado Ricci, Director-General of Antiquities and Fine Arts. There will be twelve sections:—(1) Prehistoric Archæology; (2) Oriental Archæology; (3) Pre-Hellenic Archæology; (4) Italic and Etruscan Archæology; (5) History of Classical Art; (6) Greek and Roman Antiquities; (7) Epigraphy and the Study of Papyri; (8) Numismatics; (9) Mythology and the Study of Religions; (10) Ancient Topography; (11) Christian Archæology; and (12) Organisation of Archæological Studies. The price of a ticket of membership of the Congress is 20 lire, and members may obtain tickets for ladies of their family for 10 lire. Those who desire to read papers or to bring proposals before the Congress are requested to communicate with the secretary-general, Professor Lucio Mariani (to whom subscriptions should also be sent), Direzione-Generale di Antichità e Belle Arti, 11 Piazza Venezia, Rome. Two special excursions will be organised in connection with the Congress—one to Sardinia and the other to Magna Græcia and Sicily.

The tenth International Congress for the History of Art will be held immediately after the Archæological Congress, from 16th to 21st October, under the presidency of Professor Adolfo Venturi. The sections will deal with Christian, Romanesque, Gothic and Renaissance, and modern art, while a fifth section will discuss problems connected with organisation and methods of co-operation between workers of different countries. The cost of tickets of membership is 25 lire, but members may obtain tickets for ladies of their family for 10 lire. Visits have been arranged to the principal private collections of Rome and its neighbourhood, for which as a rule permission can only be obtained with great difficulty. Further information can be obtained from the secretary-general, Dr. Roberto Papini, Via Fabio Massimo 60, Rome. It is requested that those who may desire to bring communications before the Congress will inform him without delay. Holders of tickets of membership of either Congress will be entitled to return tickets to Rome at a very considerable reduction, available probably for forty-five days.

Port of London Authority: Designs for New Head Offices.

In response to the competition announced in November last inviting the submission of preliminary sketch designs for new head offices for the Port of London Authority, 170 designs were received. The Authority, on the advice of their assessor, Sir Aston Webb, C.B., R.A. [*F.*], have selected the six designs sent in by Mr. Robert Atkinson [*A.*], Messrs. J. A. Bowden & T. Wallis, Mr. Edwin Cooper [*F.*], Messrs. Lanchester [*F.*] & Rickards [*F.*], Mr. J. Reginald Truelove [*A.*], and Mr. Ernest W. Wray. The authors of these designs will be invited to take part in the final competition, at an honorarium of 200 guineas each. The Authority do not propose to exercise the right they reserved to themselves of inviting designs from architects other than those who took part in the preliminary competition.

"Shakespeare's England" at Earl's Court.

Amongst the exhibits that will be constructed for the show of "Shakespeare's England" to be opened on the 11th May in the Earl's Court grounds are full-size models of Staple Inn, the Globe Theatre, Bankside, and the Mermaid Tavern in Bread

Street, Cheapside, celebrated in verse by Francis Beaumont and Ben Jonson. The models of St. Mary's and Ford's Hospital, Coventry, Windsor cloisters, and Ledbury Hall have been prepared under the direction of Mr. E. L. Lutyens [*F.*]. The buildings for the exhibition are formed largely of a fireproof composition which can be made to look exactly like stone or brick or wood as may be desired. The architectural details are being moulded on the spot and built into place on plans drawn largely from Messrs. Garner and Stratton's book on Tudor Domestic Architecture, Mr. Gotch's on Architecture of the Renaissance, and the Architectural Association's Sketch-books. The Elizabethan Literary Society have formulated a scheme for the preparation of a map of London as in the days of Queen Elizabeth. It is intended to mark upon the map, sites, places, and buildings which are associated with the literary and social history of the city during the period of about eighty years that ended with the death of Massinger in 1640, or which possess other interest, and to plot the lines of the streets as contrasted with those of modern times.

Obituary.

John Samuel Phené, LL.D., F.S.A., F.G.S. [*Fellow*, elected 1872], whose death at the age of ninety was announced at the General Meeting of the 18th March, received his early education at King's Lynn Grammar School. He matriculated at Durham, removing to Trinity College, Cambridge. On quitting the University he became travelling tutor in the family of a wealthy relative, and was thus enabled to make the "grand tour." This generated a love of travel which possessed him all his life, and there were few parts of the globe he had not visited and explored in pursuit of his studies in comparative archæology. To quote from a memoir published in the *West London Press* of the 15th March, to which we are indebted for some of the details in this notice: "One branch of investigation took him from Iceland to South Africa, and in America from Lake Superior to the Gulf of Mexico. His journeys were always undertaken with a definite purpose. Thus he once followed carefully the various places in Byron's *Childe Harold's Pilgrimage*. In another he followed the missionary journeys of St. Paul, while later he visited the Seven Churches in Asia, mentioned in Revelation. In Greece he went to all the spots of classic fame, and in Asia, with Troy as a base, he followed the exploits of the Homeric heroes. In China and India he studied particularly the ancient routes of traffic and the ethnology of the various races. He spent some time in Japan exploring its many caves and tumuli, to aid him in elucidating the ancient religion of the country. In his wide researches he discovered no fewer than five unique and previously unknown temples—among them the ancient temple of the Cabieri in Samothrace, which an Austrian Imperial Commission had failed to find." His travels were mainly connected with his investigations into ancient religions and mythology. He had discovered an immense number of low ranges of hills, serpent-shaped, in different parts of the world, and his contention was that they were reared by prehistoric man when snake worship was prevalent. Before the British Association Dr. Phené entered upon a detailed comparison of pre-Roman works in Britain and Italy. In this he produced evidence as to the same original designs, the same nomenclature, and the same objects of worship, namely, the serpent and the dragon. In researches on the Duke of Argyll's estate at Ach-na-Goul, near Inveraray, his theory was strengthened by his excavating a subterranean temple having communicating chambers. A description of these researches was given by Dr. Phené in a Paper read before the Royal Institute in May 1873, entitled "On Results of a Recent Investigation into Ancient Monuments and Relics" [Transactions R.I.B.A., 1872-73, p. 181]. Dr. Phené exhaustively explored the less frequented parts of Greece—the Troad, Ephesus, Parnassus, Sparta—and published the results in various books and papers, including "Mycenæ and its Early Occupants," "Researches and Excavations in Argolis, Phocis, Bœotia, and other parts of Greece, illustrative of the pre-Hellenic Worship," and "Annotations on the earliest Greek, Hebrew, and Vedic Poetry." A Paper "On the Architecture of Troy and of Mycenæ" was read by him at a General Conference organised by the Institute in 1878 [Transactions R.I.B.A., 1877-78, p. 325]. Prehistoric Britain he was deeply interested in, and he published pamphlets "On some striking Historical and Linguistic Features belonging to the first 1,000 years of British History and attaching to the vicinity of the British Roads and Earthworks," "Ancient Pagan Deities of South Britain," and "King Arthur and St. George." One of his most popular essays was an appreciation of "Constantine," read before the British Archæological Association at York in 1891. Dr. Phené was one of the founders of the Huguenot Society and of the Japan Society. He was a foundation member of the Society for the Encouragement of the Fine Arts, a Fellow of the Society of Antiquaries, a Fellow of the Royal Archæological Society at Athens, and a Corresponding Member of the Academy of Sciences of New York. His work in surveying the wild country in America west of the Mississippi and Missouri won for him a high place in scientific America. He enjoyed the close friendship of many distinguished men, including Sir Henry Layard, the Marquis of Bute, Lord Tennyson, Bishop Creighton, Lord Kelvin, and the Marquis of Lothian, though perhaps his closest friend of early years was the late Rev. Edward Bradley, better known as "Cuthbert Bede," the author of *Verdant Green*. Dr. Phené

was the first to plant trees in a public thoroughfare, and his avenue of trees in Oakley Street, Chelsea, where he owned considerable property, attracted wide attention, being visited by Queen Victoria and the Prince Consort. Except that he was the architect fifty years ago of what is known as the "New Wing" of the Royal Free Hospital, Gray's Inn Road, little information is available as to his professional career as an architect. He was best known to ordinary people as being responsible for the remarkable Renaissance house at 76 Oakley Street. Dr. Phené claimed to be the descendant of an Italian family which crossed over into France and settled at Savenay on the Loire. There they built a château, which was destroyed in the last battle with the Vendéans. The château was one of several palaces held by the Phené family, one of which was Knole, in Kent, which in the reign of Henry VI. was sold by Sir William Phené for 4,000 marks to Thomas Bourchier, Archbishop of Canterbury. That the Phenés of Knole were of the Savenay branch was proved to Dr. Phené's mind by the fact that the crest of the Savenay family, a double-tailed mermaid, figures prominently in the decorative reliefs at Knole. His idea was therefore to erect in Oakley Street as exact a counterpart as possible of the château on the Loire. He visited Italy and got drawings and articles for use at Oakley Street, spending hundreds of pounds in securing what he conceived to be exact replicas. But he never finished his work, and for many years the house has been in a half-ruined condition, with the front door boarded up, netting over the windows, and dirt and grime covering everything. The garden is surrounded by a high and massive stone wall, topped by a fine iron railing, while over the door are cut the words "Renaissance du Château de Savenay." Curious heraldic devices on the walls are supposed to represent, in a cryptic way, the ancient descent of his family from the Phœnicians through India, Persia, Troy, and Italy. Dr. Phené's remains were interred in the family grave at the village of Kensworth, near Dunstable.

James Redford [*Associate* 1865, *Fellow* 1872, *Retired Fellow* 1900], who died on the 10th December 1911, aged 74, was a man remarkable for determination and steadfastness of character, combined with a most practical ability and a minute thoroughness in all he undertook. At an early age he visited Canada, and returned with many interesting sketches of the Dominion as it then was. He spent the years 1862–1863 in Italy and France, covering a distance of 7,488 miles, and returning with a portfolio of most valuable sketches and detail drawings, several of which were reproduced in architectural journals, notably the Tomb of Guglielmo da Castelbarco, Verona, and the Cloisters of San Giovanni in Laterano, Rome. In the year 1864 he was awarded a Medal of Merit by the Royal Institute of British Architects for a set of "very neat" drawings, and a description of Croxden Abbey, Staffordshire, which also earned for him the thanks of antiquarians. In 1869 he designed a Pavilion for the shooting range of the 3rd Manchester Rifle Volunteers, which attracted considerable interest as it was erected on that portion of Chat Moss which presented one of the earliest difficulties in railway engineering. The Pavilion was placed on piles at a spot where the moss was found to be 22 feet deep, and an account of it was given in the *Illustrated London News* of 30th October of that year. Early in his career he was the architect of the Matlock Old Bath Hydropathic Establishment; The Schools for the Deaf and Dumb, Old Trafford; and St. David's Church, Wettenhall. His subsequent work was for a number of years of a very varied and extensive character, including houses, hotels, police stations, hospitals, banks, and mills. Latterly he did an unusual amount of brewery work, erecting amongst others the brewery for Jowett, Waterhouse & Co., at Oldham; The "Crown Brewery," Whittle Springs; and Robert Cain & Son's "Mersey Brewery," the largest in Liverpool. Apart from his profession he was in earlier life a keen volunteer and an excellent oarsman. He was also a freemason, and his Lodge presented him with a gold badge and illuminated address as a mark of esteem and appreciation for the services he had rendered in designing their ceremonial furniture. He had been in failing health since the death of his wife in 1907, and succumbed to an attack of pneumonia. He was buried in the same grave with his father, mother, and wife, at St. Paul's, Withington.—L. V. Cargill.

MINUTES. XI.

At the Eleventh General Meeting (Ordinary) of the Session 1911–12, held Monday, 1st April 1912, at 8 p.m.—Present: Mr. Ernest Newton, A.R.A., *Vice-President*, in the Chair; 20 Fellows (including 5 members of the Council), 41 Associates (including 1 member of the Council), 4 Hon. Associates, 10 Licentiates, and numerous visitors—the Minutes of the Meeting held 18th March 1912, being printed in the Journal, were taken as read and signed as correct.

The Hon. Secretary announced the decease of Frederick William Albury, *Retired Fellow*.

Mr. Frederick Alfred Crouch, *Associate*, attending for the first time since his election, was formally admitted by the Chairman.

A Paper by Mr. Edwin T. Hall [*F.*] on Art Museums and Picture Galleries having been read by the author and illustrated by lantern slides, a discussion ensued, and on the motion of Dr. Evans Hoyle, Director of the Welsh National Museum, seconded by Sir Wm. Goscombe John, R.A. [*Hon.A.*], a vote of thanks was passed to Mr. Hall by acclamation.

The Chairman announced that an Extra General Meeting had been called for Monday, 15th April, to resume the discussion of the Papers on "The Newer Responsibilities of Architects" [Journal, 13th January 1912], and to hear a further Paper on the subject by Mr. A. Saxon Snell [*F.*].

The proceedings then closed, and the Meeting separated at 9.55 p.m.